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ABSTRACT

This document reports on a 2-year study of the influence of males on the development of children and impact of male aides on child-care activities. The study originally developed from clinical observations and research results concerned with effects of fathers' absence on children and adolescents. The first year of the program was for demonstration purposes and did not involve control groups. Eight high school age males were trained and placed in two day care centers as educational aides. One center was located in a middle class neighborhood, and the other in an economically disadvantaged area. In the second year of the project, two more centers were added, as well as control centers where no males were placed. The report describes the operations of the project anecdotally as well as with data from structured observations and psychological testing. (DP)

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MALE CAREGIVERS IN DAY CARE: DEMONSTRATION PROJECT*

Family Research and Development
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CHAPTER I

Introduction

The role of males in the development of young children or in the course of development for older children, adolescents, and adults has been much neglected. In most societies, women have assumed the dominant role in the life of the child under six, and the fundamental importance of the mother in shaping the personal, social, and perhaps intellectual life of the child has been institutionalized by Freud, although Freud gives fathers a profound, not very benign, place in the sex role identification of the male and perhaps the female child.

Long ago as a graduate student at the (then) Iowa Child Welfare Research Station, the Senior Investigator observed how important to children male figures were when he and the other male research assistants at Iowa were assigned research, testing, and teaching duties in the Iowa Laboratory Preschools. The children enrolled in these schools were upper middle class and the demands for attention, love, and games they made on the male research assistants were clearly more insistent and persistent than those made on the female research assistants who went into the preschools to perform similar assigned duties. Much later, the Senior Investigator, working with Professors Walter L. Hodges and Howard H. Spicker at Indiana University with exceptionally deprived Appalachian five-year-olds, found that he, Hodges, and Spicker could not carry out the research, which included "from the floor" observations, because of similar insistent demands for attention, affection, and games made on them by the children. Young men assistant teachers were introduced into the teaching staff to free the more senior research people to go about their duties. Finally, after a long time away from teaching undergraduates, the Senior Investigator found that his claque -- the students from large classes who group themselves about the professor after class, follow him to his office, and come in for more formal appointments -- had changed from being almost exclusively female to being almost exclusively male. As he came to know the young men in these claques, he learned that almost without exception, they had suffered either physical or psychological absence of fathering from the time they could remember.

It is of such clinical observations and personal experience that many research ideas are born, and it was from these experiences that the idea of putting young men into service as teachers of young children emerged.

At a more formal level, the role of males (fathers, typically) in the development of children has attracted considerable interest in recent years. The research has usually been focused on how the absence of a father affects the child. McCandless and Evans (1973) provide a detailed summary of this literature, so it will be summarized only in the broadest of strokes.

With some exceptions, the findings from many studies (many of them not very rigorous) suggest the following broad conclusions:

1. The earlier in the child's life and the longer the period during which separation occurs, the more profound the effects are on the child. In general, the effects are deleterious, although the confounding of energy and financial stress on mothers who must maintain families alone, with the factor of absence of the father has never been adequately studied, or, often, even recognized.

2. The effects of father absence, at least until the facts revealed in some very recent studies, seem to be more harmful to boys than to girls, although girls have usually showed effects similar to but less dramatic than those shown by boys.

3. Children growing up in father absent homes, as they will be referred to hereafter, show lower intelligence test scores, even when matched for socioeconomic status.

4. The father absent child, when grown, has a different intellectual pattern from that of the father present child: It is more "feminine" (i.e., relatively or absolutely speaking, the Verbal Quotient is elevated over the Performance or Quantitative Quotient).

5. The father absent boy, even when matched on major

relevant variables including intelligence, performs less well academically than the father present boy. This variable has not, to the present authors' knowledge, been studied among girls.

6. Father absent boys are more "feminine" for other variables, such as fantasy aggression.

7. Father absent children are lower in moral development, as judged by the Kohlberg stories.

8. Father absent children are more dependent, in the emotional dependency sense.

9. Father absent girls, at adolescence, have "courting problems" that vary according to the reason the father is absent: Girls whose mothers have been widowed are reclusive with boys; girls whose mothers have been divorced are bolder than average with boys.

10. Father absent children and, again, particularly males, are lower in confidence in the benignity of others -- i.e., they are low in interpersonal trust.

For such reasons, the present project was launched. During its first year, it was mainly a demonstration project (i.e., there were no control groups); in the second year, well-matched control groups were located, and the demonstration aspect of the project was at least matched if not overshadowed by the research aspect.

The reasoning was as follows: Children in day care, whether advantaged or disadvantaged economically, come in high proportion from homes without fathers. Even in father-present homes in an urban society, children do not get much fathering, as the fathers (from any social class) leave home early and come home late. Presence of an adult male (or older adolescent, as in the present project) is beneficial for the development of children. Experience with young children is "good" for young men (or, again, for men of any age).

Thus, the authors originally found two day care centers, one for advantaged children, most of whom were white and which was financed by fees to parents; and one for poor children, all of whom were black, which was financed by private and public funds, where the directors and staff were interested in trying out young men as teachers. Through the public schools of Atlanta and DeKalb County (the adjacent "bedroom" area of Atlanta), young men were found who were eager for the experience provided by the project staff and the two facilities. During the second year of the study, two other centers that closely matched the first two, but where there were no males on the teaching staff, were found and used as control populations.

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The authors' reasoning was that, from such an arrangement, much needed information could be obtained about the influence of males on the development of children; as well as the impact of care of young children on young men. The authors were confident that, in general, the interaction between children and young men would be positive in both directions.

CHAPTER II

Male Caregivers in Day Care: First Demonstration Year[1]

Introduction

Eight high school aged advantaged and disadvantaged black and white male youths were recruited as caregivers for advantaged and disadvantaged black and white boys and girls in early learning center and day care settings. The two experimental centers which were involved in the project were the Kittredge Springs Early Learning and Child Care Center and the Donner Project.

The Kittredge Springs Early Learning and Child Care Center, which is owned and operated by the Family Learning Centers, Inc., was opened to children in March, 1970. During the first year of the study, 176 middle and upper-middle income children, most of whom were white, but some of whom were black and some oriental, were enrolled. The children's age range was roughly from four months to about seven years. Only about 25 percent of the children came from homes where the mothers worked. Some children, (approximately 20), were half-day children enrolled in the program. The rest were full day care. The parents of the children paid for the day care services in accordance with the following fee scale:

Over 2½ years of age:
  $25/week -- 7:00 a.m. to 6:00 p.m.
Ages 18 months-30 months:
  $30/week -- 7:00 a.m. to 6:00 p.m.
Ages 6 months-18 months:
  $35/week -- 7:00 a.m. to 6:00 p.m.

The Donner Project involved 41 disadvantaged black children and their families in a model demonstration early learning and day care setting in an Atlanta inner-city area. Some of the financing for this project came from the Donner Foundation, the rest from the State of Georgia and the Federal Government. The project was administered by Family Learning Centers, Inc. The children's age range was approximately from four months to about seven years. Fifty-seven percent came from homes where there was a real father or a surrogate father present.[2] Sixty-eight percent of these children were living with their real fathers and the remaining thirty-two percent had mothers' unofficial male companions as surrogate fathers. None of the parents of the Donner Project children paid for day care. The center was open between 7:00 a.m. and 6:00 p.m. (See Appendix A for a list of the members of the Educational Advisory Board for both centers).

Recruitment of the Male Caregivers

To secure the services of young men, the Family Research and Development Foundation went to Mr. Robert Green, Chief Counselor at Clarkston Adult High School, and to Mr. Roger Cain, Diversified Cooperative Training Coordinator at Atlanta's Carver High School. Mr. Green selected a panel of young men (mostly high school juniors and seniors) on the basis of their interests and desirable personal characteristics. From this panel, those involved in the demonstration project selected four young men. Mr. Roger

Cain did the same preselection for the Foundation. From this panel, four young men were selected to work at Donner.

Four of the young male caregivers were black and could be described as being upper-lower in terms of socio-economic level (SEL). Since this group worked at the Donner center, it will henceforward be referred to as the "Donner-Caregivers." The other four young men were white and of middle class background. They worked at the Kittredge Springs Center and will be referred to as "Kittredge-Caregivers."

No difficulty was encountered in the recruitment of male caregivers for the Donner Center. For the Kittredge Springs Center, however, the recruitment process was more difficult, mainly due to the lack of cooperation of the Briarcliff High School. Although this high school is immediately adjacent to the Kittredge Springs Center, and the patrons are of similar SEL background as the Kittredge children (middle to upper-middle class), the attempts by the Foundation to recruit there were blocked. Consequently, the male caregivers came from Clarkston Adult High School, also in the DeKalb School System.

It must be mentioned that there was never any problem in the recruitment process with respect to the availability of young male high school students who wanted to participate in this program. The problems that the Foundation staff encountered, especially during the second year, were directly related to the rather rigid academic schedules and attitudes of most of the traditional high school personnel in the area.

All eight young men who participated in the first year of the project were paid $2.00/hour. Furthermore, an agreement was reached between the Foundation and the respective high schools involved whereby the young men were given two academic credits for their participation in the project. At the end of the first year, Mr. Green, the Chief Counselor from Clarkston Adult High School, informed the Foundation staff that the two academic credits would no longer be awarded to the participants in the project since it led to "jealousies" among the students who were involved in other work-study programs but did not receive any academic credit for their involvement. The Foundation staff argued, however, that this particular program was unique in that the young men received active instruction in the field of child development and child care. At least one young man involved argued the same point individually with the school administration, although he had already graduated and did not need the credits. It is to the credit of the school administrators involved that they decided to reconsider and finally reversed their original decision. Thus, the Clarkston males who participated in the project during the second year continued to be awarded two academic credits.

Male Caregivers: General Background Information

All eight male caregivers were high school students. Two of the Kittredge men were seniors and the other two were juniors. Of the Donner men, one was a senior, two were juniors, and the other was a sophomore.

The average age for the male caregivers during the first Demonstration Project year was 17 years and 7 months, the range being from 16 years 3 months to 19 years 5 months (see Tables 1 and 2). The mean age of the Donner boys was 17-1, whereas the mean age of the Kittredge boys was 18-2. All came from intact families where both parents were present, except in the case of one of the Donner male caregivers whose mother had died recently. All of the young men had siblings. Donner caregivers came from big families, averaging 6.8 siblings, as opposed to Kittredge caregivers, for whom this average was 1.5. In terms of their interests and hobbies, the two groups of caregivers were somewhat different (see Table 3). The Donner men listed, almost unanimously, football and basketball as their hobbies. The Kittredge men, on the other hand, were more individualistic in terms of their interests, listing hobbies such as playing the guitar, chess, backpacking, camping, collecting rocks, football, nature, etc.

The two groups of caregivers were also different with respect to their expressed interest in religion and politics,

Table 1

First Demonstration Year:
Biographical Data for the Kittredge Male Caregivers

Subject^3	Birthdate	H.S.	Hobbies	Brothers		Sisters	
				No.	Ages	No.	Ages
Ed	2-16-53	4	Football Nature	2	22 9	-	-
Oscar	5-6-54	3	Singing Playing guitar	-	-	2	16 14
Eric	4-28-55	3	Chess Backpacking	-	-	1	13
Alan	7-21-52	4	Camping Collecting rocks	-	-	1	21

Table 2

First Demonstration Year:
Biographical Data for the Donner Male Caregivers

Subject	Birthdate	H.S.	Hobbies	Brothers		Sisters	
				No.	Ages	No.	Ages
David	6-9-55	3	Football Basketball	4	25 21 19 13	3	32 17 14
Ted	9-17-55	3	Football	4	21 20 19 17	4	23 13 11 10
Bill	2-6-54	3	Football Basketball	4	24 9 9 7	3	20 13 10
Jack	7-16-54	3	Baseball Basketball	1	22	4	18 16 14 12

Table 3

First Demonstration Year: Individual Interests of the Donner and Kittredge Male Caregivers

	Travel	Out-Door Sports	Religion	Mechanics	Social Life	Literature	Music	Art	Science	Politics	Domestic Arts
(Kittredge)											
Ed	M	M	S	S	S	A	M	A	A	S	A
Oscar	M	A	S	S	A	M	M	A	M	A	A
Alan	M	M	M	S	A	A	M	M	A	S	A
Eric	S	M	S	A	A	M	M	A	A	S	A
(Donner)											
David	A	M	A	A	-	A	S	S	A	A	A
Ted	M	M	A	A	M	A	A	A	A	A	A
Bill	M	M	A	S	M	A	M	M	A	A	S
Jack	M	A	A	S	A	M	S	M	A	A	S

M = Much
A = Average
S = Slight or none

with the Donner men professing an average interest in both as opposed to the Kittredge men who, with the exception of one, professed slight or no interest. The exception was a young man, a Meher Baba follower, who expressed a great deal of interest in religion, unlike any of the other seven young men. As can be observed in Table 4, both Donner and Kittredge male caregivers expressed keen interest in travel, outdoor sports, and music, little interest in mechanics, and average interest in social life, literature, art, science, politics, and domestic arts. (For a brief individual introduction to each of the male caregivers, please refer to Appendix B).

Introduction of the Male Caregivers to the Centers: Training and Operational Procedures

After the selection of the eight male caregivers, they were given a three-day preservice training by the Curriculum Coordinator of the Family Learning Centers. The purpose of this preservice training, which was comparable to any preservice training for incoming assistant teachers, was to:

(1) introduce the male caregivers to the centers and the personnel at these centers;

(2) introduce the male caregivers to the policies and procedures of the centers;

(3) present the male caregivers with the curriculum objectives of the centers and to help them with the acquisition of teaching skills for the implementation of these objectives.

Table 4

First Demonstration Year: Interests of the Male Caregivers

(Donner and Kittredge Combined)

Travel	M = 75% A = 12.5% S = 12.5%	Domestic Arts	M = 0% A = 75% S = 25%
Religion	M = 12.6% A = 50% S = 37.4%	Outdoor Sports	M = 75% A = 12.5% S = 12.5%
Social Life	M = 28.57% A = 57.14% S = 14.29%	Mechanics	M = 0% A = 37.5% S = 62.5%
Music	M = 62.5% A = 12.5% S = 25%	Literature	M = 37.5% A = 62.5% S = 0%
Science	M = 12.5% A = 87.5% S = 0%	Art	M = 37.5% A = 50% S = 12.5%
Politics	M = 0% A = 62.5% S = 37.5%		

M = Much
A = Average
S = Slight or none

A list of topics covered in relation to point three and a copy of the instructional objectives discussed are appended (Appendix C and Appendix D).

This three-day preservice training was an initial concentrated introduction to early childhood teaching and was followed by regular weekly in-service training sessions. In addition to these sessions, which were joined in by all the teachers of a particular level (i.e., nursery, preschool, or kindergarten) at the centers, the male caregivers also had regularly scheduled meetings with the administrators of the Demonstration Project. During these meetings, which took place at the end of each week, the problems brought up in the weekly reports of the male caregivers were discussed and the pleasant experiences of the week were shared. During the week, the administrators of the project tried to remain in close contact with the lead teacher and/or the directors under whose guidance the male caregivers were working. Also, each young man was observed on the job every week by one or more of the administrators. Both as a result of the close cooperation between teachers/directors and the administrators of the project and the weekly observations of the male caregivers, feedback could be given to the young men concerning their performance, accompanied by a discussion of the possibilities for improvement whenever necessary. They were also provided with appropriate reading materials and occasional lectures on topics of educational interest.

Bi-weekly meetings took place among the project administrator, the curriculum coordinator for the Family Learning Centers, and the directors of the two centers. During these meetings, observations of the male caregivers were discussed and information was shared concerning their performance. Also, by keeping the lines of communication open between the centers and the project administration office, the meetings were helpful in identifying and dealing with problem areas as fast as possible.

The male caregivers were introduced to the parents of the Kittredge Springs and Donner Project children by a letter signed by the president of the Family Learning Centers. A copy of this letter describing the project is appended (Appendix E). A "request for parental permission" was attached to each letter. This permission was for the testing of the children in the project sample. However, this letter and the request sheet were mailed to all the parents.

This letter was followed on a one-to-one basis by an informal description of the project to the interested parents. Also, the project administrator gave a talk to a group of parents and teachers at Kittredge Springs describing the project and discussing the relevant research findings.

Four young black men were employed at the Donner Center and four white young men were employed at the Kittredge Center. Of the four male caregivers at each center, two were asked to work in the mornings (7:30 a.m.-12:30 p.m.) and two in the afternoons (12:30 p.m.-5:30 p.m.) with each young man working five hours every weekday. To give each male caregiver a chance to work both morning and afternoon shifts, the morning shift workers were to change to afternoon shifts and vice versa in January, 1972.[4] This was very successful at the Kittredge Center. Scheduling problems at Carver High School, however, precluded this morning-afternoon shift from taking place at the Donner Center. Therefore, the Donner young men continued in the same shifts they started out with in the beginning of the project.

Considerations for the wider availability of the male caregivers in an early learning center the size of Kittredge led to the decision to move the male caregivers to a new teacher and a new group of children approximately every five weeks. This was the procedure at Kittredge until the end of the first year of the project for all the young men except one. The exception involved the young man who accepted the assistant teacher position in the toddler area (see Appendix B). He had his own small group of children in this area but was also available to all the other toddlers for approximately nine hours every day. The procedure of moving the male caregivers every five weeks was not deemed necessary for the Donner Center, which is a small center, so that the male caregivers were quite available to all the children. The male caregivers at this center, therefore, worked with the four-

and five-year-olds with no moves until January, at which time they moved to the baby and toddler area (4 months to 3 years). They stayed with the same children until the end of June.

Narrative

Kittredge Springs Center. At Kittredge, it was decided to start all four young men with the three-year-old preschool group. This decision was made because the two teachers in this particular area were considered to be "superior" in terms of their demonstration of good teaching skills, as well as being "patient," "good-natured," and "self-confident." Thus, in addition to the hoped-for positive modeling effects they would provide for the young men, it was also thought that they would not be "threatened" or "upset" by the almost constant presence of outside observers in their classes. It needs to be pointed out at this time that, in spite of the extra supervision involved, practically all of the teachers at the center welcomed the presence of the young men and waited eagerly for their turn to have the men with their particular groups. This was no doubt largely due to the novelty effect of the young men and the research project, probably coupled with their interest in having a much-needed "extra hand" with the children.

Each teacher in the three-year-old area was assigned two young men, one each for morning and afternoon shifts. Thus, there were two female and two male teachers working with this age group at all times, with the exception of the outdoor and indoor free play periods during which the female and male teachers circulated, in general, among all preschool children. As the male caregivers were moved to different age groups, the same arrangement was followed.[5]

The young men working at this center, in general, adjusted to their jobs quite rapidly. The adjustment process, as would be expected, was relatively easy for some, and more difficult and much longer for others.

Alan and Ed were almost instantaneous successes. Both were quiet, soft-spoken young men who were unusually gentle and firm at the same time. It was easy to communicate with them; they were eager to learn and to please. Teachers with whom they worked very rarely had complaints about them; even then, the complaints were never serious and were usually included in a passing manner in a long list of admirable qualities. Among these admirable qualities several stood out as the most frequently cited by all the teachers with whom these two men worked as being the main reasons for their success:

(1) dependability and a sense of responsibility
(2) initiative
(3) good observational and modeling skills
(4) punctuality
(5) motivation and a sense of enjoyment

Oscar and Eric, on the other hand, were slower to adjust and reach an acceptable standard of performance. The difficulties encountered with respect to Oscar's performance were not serious. He was good-natured, tried hard, did what he was asked; however, he failed to show enthusiasm or take initiative. His tardiness and frequent absenteeism were also problems. With Eric, the complaints were more serious and persistent, and were aggravated by a certain "distance" he placed between himself and others. At first, the complaints about him were poor modeling behaviors, such as falling off his chair during lunch (which resulted in a chain of imitations among the children, much to the teachers' chagrin), and yelling "Jesus Christ" at the top of his voice. Being sarcastic with children was also a problem. Once, a teacher complained, he told a child who could not fit in a locker, "We'll cut your head off and they you'll fit in there just right." Children could not understand sarcasm and took him seriously. The same teacher also complained, as several other teachers did, that Eric made her uncomfortable with the children. According to her, he appeared to resent being told exactly what to do. The hints and implicit suggestions were not heeded. When asked not to repeat a particular behavior in the presence of the children, he carefully complied; however, he did not generalize from this to other similar behaviors. Thus, he needed constant supervision and a long list of specific do's and don'ts. On the positive side, he was punctual (even though he rode a bike to school almost every morning) and his attendance was perfect. He was also responsive to criticism and was a good critic of his own performance.

A later complaint from a parent proved to be much more serious for Eric. Apparently inexcusably losing his temper, he had pulled a little girl by the wrist, hoping to get her attention and compliance. The force was more than even Eric had planned to apply, and consequently the little girl had a sprained wrist. The parents took her to the doctor the next morning and, after the official confirmation of the sprained wrist, complained to the school administration. The administration in its turn informed us that Eric's services were no longer acceptable. This decision was quick, not only because of the seriousness of the situation, but also because Eric had been the most "difficult" male caregiver at the center. His response to being fired was instrumental in getting him rehired. He was so terribly upset, sad, and disappointed that it was quite impossible not to give him another chance. With the consent of the parents involved, Eric was allowed to continue with much more strict supervision both by his lead teachers and the project administrators. This, as it turned out, was a wise decision. He responded well to guidance and tried very hard to maintain an acceptable performance. His interpersonal relations improved, and he was more relaxed and "open" with his co-teachers. Since he felt much more at ease with the older children and could really stimulate them intellectually, and because of the close supervision necessitated by his not quite up-to-par previous performance, it was decided to let him continue with the kindergarten group, where the teachers were willing to work closely with him and provide him with constant feedback. No other serious incidents developed during the rest of the year.

At the conclusion of the first year, the male caregivers at Kittredge were evaluated by their lead teachers and the center director, and recommendations were made with respect to their employment during the second year of the project. These evaluations agreed with the project administrators' evaluations in all cases except one.

Alan had already proved himself to be a good teacher and had been offered a full time job with the center as early as January. Ed's evaluation was also very good and it was recommended that he return the second year. There was uncertainty with respect to Oscar. His performance was not entirely satisfactory, but neither could any serious fault be found with it. Thus, it was decided to continue with him during the summer, however, indicating to him that this was a "probationary" period and that his stay with the project would be contingent on his improved performance during the months of July and August. With respect to Eric, there was a conflict of opinion. Although his performance had improved considerably, the center director felt that he should not be asked to take part in the second year of the project. The project administrators felt that he probably should, since his behavior had changed so remarkably over the past few months. Another month of evaluation was decided upon, during which time the lead teacher under whose direct supervision Eric had been working since January continued to evaluate Eric's performance positively and recommended that he stay with the project. Thus, Eric was asked to participate in the project during the second year. (See Appendix F for copies of these evaluations.)

Donner Center. The male caregivers at Donner started to work with the three- and four- (preschool) and five-year-old (kindergarten) groups with two young men, one for the morning and the other one for the afternoon shift, assigned to each age group. The two shifts were different in terms of the availability of the young men to all the children in the center. The afternoon shifts increased this overall availability due to the relatively unstructured program followed in the afternoons with ample time for free play. During the mornings, which were highly structured in terms of instructional group activities, the young men almost exclusively worked with the age group to which they were assigned. As stated earlier, the Donner men worked with the preschool and kindergarten groups with no moves until January, at which time they moved to the toddler (2½-year-old and younger) area. Since the center was very small, and without complete physical separation of age groups, this move did not make the male caregivers unavailable to the other children at the center.

Of the four young men at Donner, Jack was an unqualified instant success. He made the transition between pre-service training and actual teaching experience very smoothly. Bill and Ted, the two afternoon workers, also adjusted to the actual teaching experience quite readily. All three young men had good observational and modeling skills that facilitated their active training and later classroom performance.

The fourth young man, David, had recurring problems of adjustment and was never able to maintain a level of performance that was satisfactory. For those in supervisory and teaching roles, the task of dealing with his erratic performance was further complicated by the apparent lack of motivation he displayed. His self-imposed "distance" from others in the work environment (with the exception of his co-worker, Jack, during the second half of the year) further complicated matters by creating a communications barrier.

After the male caregivers were transferred to the toddler area in January, a mutual unhappiness started between the young men, especially the morning shift workers, and a middle-aged lady who was the lead teacher in the area. Unlike the previous teachers with whom the young men had worked and who were all young and guided them in the manner of slightly older sisters, this older woman, belonging to a different generation and frame of mind, directed the males in a very authoritative manner mainly because they were men and did not know what child caring was supposed to be about. For David, the resultant discontent, inadvertently fostered by a misunderstanding between David and a male member of the project staff, almost resulted in David's leaving the project. Introduction of some procedural changes into the daily schedule at the center provided some temporary relief. Each male caregiver was assigned a group of children for whom he was primarily responsible. This change partially freed the male caregivers from the domination of the older teacher.[6] David's performance improved slightly and there were no major incidents during the remainder of the year. Meanwhile, Jack's performance had become a source of concern. Although his actual teaching performance continued to be quite satisfactory, his outside-the-classroom behavior became less and less responsible. He was frequently trying to borrow money from his co-workers or supervisors or asking for early paychecks. He started staying away from his job or coming in late. All attempts at discovering the reasons behind this change in performance failed. He was also unresponsive to suggestions designed to remedy the situation (i.e., budgeting of money, possible change of working hours). Finally, upon calling the Center Director several times in one morning pretending to be his own mother and informing the Center Director that Jack would not be coming in due to illness, he was terminated. He was due to leave in another month. In the light of his initial success with the program, this later problematic behavior was surprising and disappointing.

In the final evaluation of the male caregivers at this center, it was decided to ask Bill and Ted to continue with the program. Although David's performance had shown a slight improvement, his skills continued to be considerably below those of his co-workers. Most importantly, his attitude toward teaching and his job responsibilities remained quite negative; therefore, he was not asked to continue with the project. (See Appendix G for the evaluations of the Donner male caregivers.)

Interim Period Between First and Second Demonstration Years (July and August, 1972)

Of the Kittredge men, Oscar and Ed stayed on with their jobs during the summer interim period. Alan had made plans to go to India in the fall. He had been communicating an increasing lack of challenge and a desire to experience new teaching problems; therefore, he was transferred to Donner to work full time with the toddlers at that center. He was replaced in the Kittredge toddler area by Ed. Eric was given a leave-of-absence to work as a camp counselor. Two college men were hired to work as temporary replacements for Alan and Eric during these two months.

Of the Donner men, Ted, for financial reasons, was given a leave-of-absence to work full time on a summer job where he could make more money. Bill stayed with the job. In addition to Alan, Ron was another newcomer to the Donner center. He had recently been graduated from Douglass High School and wanted eventually to become a medical technician. He was recruited through Mrs. Bobbie Parker, counselor at Douglass High School, who later showed great interest in the Demonstration Project and helped the project staff with future recruitments and screening procedures.

Male Caregivers in Day Care:
Second Demonstration Year[7]

In the beginning of the second demonstration year, only two of the original four young men at each center were back with the project. At Kittredge, Ed and Eric stayed on with the project. Although he had made good progress during the summer, Oscar decided to leave the project for a career as a musician with a rock band. Alan, as previously mentioned, had plans to go to India and he left in the fall of 1972.[8]

At Donner, Bill and Ted were back. Meanwhile Ron, who started his involvement with teaching on a temporary basis, had become very interested in education. With the assistance of the Foundation staff, he was placed in a full time teaching position in a local day care center. This was easily accomplished because of his successful performance during the summer. He is presently working on the same job and taking courses toward a degree in education. His special field of interest is mental retardation.

Recruitment of the Male Caregivers

Recruitment of the new male caregivers was accomplished through Mr. Robert Green, Chief Counselor at Clarkston Adult High School, and through Mrs. Bobbie Parker, Diversified Cooperative Training Coordinator at Douglass High School.

The two new male caregivers at Kittredge were Aubrey and Bob, both seniors at Clarkston and Douglass High, respectively.

With the two first-year men, there were four male caregivers at this center, three of whom were white and one of whom was black (Bob).

Dan and John were the newcomers at Donner. Both were seniors at Douglass High School. With the first-year caregivers Bill, a senior, and Ted, a junior at Carver High School, there were also four young men at this center.

The four male caregivers who participated in the first and second years of the project were given a raise: during the second year they were paid $2.25/hour, while the new-coming male caregivers made $2.00/hour. The agreement with their schools and the Foundation staff whereby the males received two academic credits for this work experience remained in effect during the second year. Each young man worked 5 hours/day. All, with the exception of John, worked during the mornings.

Male Caregivers: General Background Information

In the beginning of the second project year, all eight male caregivers were high school students. Of the four young men at Kittredge and Donner, three were high school seniors; one was a high school junior. There were no changes at Donner until the end of the project year; however, due to the loss of two young men from the program at Kittredge, two new male caregivers were recruited to work at this center. Both of these new recruits were college seniors.[9]

The average age for the male caregivers was 18 years and 6 months with a range of 17-0 to 21-2 (see Tables 5 and 6). The mean age of the Donner men was 17-2, whereas the mean age for the Kittredge men was 19-2.

All male caregivers except three came from intact families where both parents were present. Of the three, one young man did not have a father until age 13 when his mother remarried. Another young man's parents had separated when he was six years old; he lived with his mother. The third one had lost his mother recently; she died in November of 1970.

All of the male caregivers except one had siblings.[10] Three of the four Donner men came from big families; the fourth was an only child. The average number of siblings for this center was 5.3. The Kittredge group averaged 3.7 siblings. In terms of their hobbies, the two groups of young men were again somewhat different (see Table 7). The Donner men were mainly interested in sports and games, while the Kittredge men listed a broader range of hobbies in addition to sports (i.e., reading, creative writing, chess, choir singing, growing plants, playing the guitar, etc.).

A majority of the male caregivers expressed much interest in travel and outdoor sports, slight to average interest in religion, mechanics, science, and domestic arts. In general, Donner men were less interested in literature, music, and art than the Kittredge men. This trend was reversed for politics (see Table 8).

Table 5

Second Demonstration Year:
Biographical Data for the Kittredge Male Caregivers

Subject	Birthdate	H.S.	Hobbies	Brothers		Sisters	
				No.	Ages	No.	Ages
Alex	7-1-51	College 4	Sports & games Reading Creative writing Philanthropy Politics Traveling	3	28 26 18	7	25 20 19 15 13 12 8
Irwin	10-26-51	College 4	Tennis Fishing Hiking	-	-	2	25 13
Eric	4-28-55	4	Chess Bike-racing & touring Backpacking	-	-	1	14
Bob	2-26-54	4	Football Track Basketball Choir singing	4	26 21 20 19	4	23 22 16 12
Ed	2-16-53	4	Growing plants Football Watching TV	2	10 23	-	-
Aubrey	5-26-55	3	Drawing & painting Playing guitar & piano Music in general	1	16	-	-

Table 6

Second Demonstration Year:
Biographical Data for the Donner Male Caregivers

				Brothers		Sisters	
Subject	Birthdate	H.S.	Hobbies	No.	Ages	No.	Ages
Ted	9-17-55	3	Football	4	22	4	24
			Baseball		21		14
			Basketball		20		12
					18		11
Dan	7-5-55	4	Basketball	3	26	3	25
			Football		19		21
			Track		14		15
			Baseball				
			School clubs				
Bill	2-6-54	4	Football	4	25	3	21
			Baseball		10		14
			Basketball		10		11
			Pool, chess		8		
			Hunting, fishing				
			Racing, playing cards				
			Travel				
John	4-25-55	4	Sports	-	-	-	-

Table 7

Second Demonstration Year:
Individual Interests of the Donner and Kittredge Male Caregivers

	Travel	Out-Door Sports	Religion	Mechanics	Social Life	Literature	Music	Art	Science	Politics	Domestic Arts
(Kittredge)											
Alex	M	M	S	A	A	M	M	M	A	M	A
Irwin	M	M	S	A	A	M	M	A	A	M	A
Eric	A	M	A	M	A	M	M	S	A	M	A
Bob	M	M	S	A	A	S	A	M	A	A	M
Ed	S	A	S	S	A	S	M	A	S	S	A
Aubrey	M	S	M	S	M	S	M	M	S	S	S
(Donner)											
Ted	M	M	A	M	M	A	A	A	M	A	A
Dan	A	M	S	S	M	A	A	S	S	S	M
Bill	M	M	A	M	M	M	M	M	A	A	A
John	M	M	A	A	M	A	A	S	A	A	A

M = Much
A = Average
S = Slight or none

Table 8

Second Demonstration Year: Interests of the Male Caregivers

(Donner and Kittredge Combined)

Travel	M = 70% A = 20% S = 10%	Domestic Arts	M = 20% A = 70% S = 10%
Religion	M = 10% A = 40% S = 50%	Outdoor Sports	M = 80% A = 10% S = 10%
Social Life	M = 50% A = 50% S = 0%	Mechanics	M = 30% A = 40% S = 30%
Music	M = 60% A = 40% S = 0%	Literature	M = 40% A = 30% S = 30%
Science	M = 10% A = 60% S = 30%	Art	M = 40% A = 30% S = 30%
Politics	M = 30% A = 40% S = 30%		

M = Much
A = Average
S = Slight or none

Introduction of the Male Caregivers to the Centers: Training and Operational Procedures

Introduction of the male caregivers to the centers and their training was conducted in much the same manner as in the initial project year. The operational assignments of the young men were somewhat different. Of the four men employed at each center, each was assigned to work with a particular age group. However, since Kittredge was a big center with an enrollment close to 200 children, the males could not be assigned to work with all members of a particular age group. The school policy was to create further subgroups within each age group to meet student-teacher ratio criteria and to create a finer and more homogeneous age grouping. Each male teacher was assigned to work with such a subgroup under the direction of the full time female teacher of that subgroup.[11] Thus, Aubrey, Ed, Bob, and Eric were assigned to work with the toddlers, three-, four-, and five-year-olds, respectively.

At Donner, with an enrollment of 42, the situation was quite different in that the males could work with all the members of the particular age group to which they were assigned. There were three main age groupings in this center: kindergarten, three- and four-year-olds (preschool), and toddlers.[12] Dan, Ted, and Bill were assigned to work in the kindergarten, preschool, and toddler areas, respectively. John, who could only work during the afternoons, was assigned mainly to the preschool group. However, since afternoon programs were more relaxed and involved much more free play, he could and did interact easily with all the children at the center.[13]

Narrative

Kittredge Springs Center. Of the four Kittredge men, Ed and Bob were assigned to work in the preschool area, Ed with three-year-olds and Bob with four-year-olds. Eric remained with the kindergarten group. Aubrey was assigned to work with the toddlers.

There were occasional problems with all of the young men, none serious, however, except in the case of Aubrey. Aubrey was very slow in adjusting to the demands of the job. In spite of constant guidance and encouragement, he remained peripheral in the classroom. He was awkward with the children; he initiated very few interactions with them, and had a tendency to initiate these interactions at inappropriate times. Furthermore, once in interaction with a child, he did not know how to maintain the interaction at a level meaningful to the child. Thus, he lost the child's interest quickly. While such problems were being worked out with further individual guidance for him, new problems arose. He started coming to school late. Sometimes he would go out of town for several days without letting anyone know. When the detrimental effects of his absenteeism and tardiness on others were pointed out to him, he countered with excuses and apologies. There was an increasing lack of communication between him and those in supervisory roles. This was not due to a "distance" between Aubrey and others; neither was it due to an unwillingness to communicate on either part. The difficulty appeared to stem from the fact that Aubrey's system of logic and view of life were very different from that of others. He appeared increasingly to lack any controls on his own behavior, accompanied naturally by an inability to predict what form his behavior might take next. He expressed this "problem" openly but did not recognize it as being a problem. At the end of a final probationary week, in a meeting where he was told he could not continue with the program any longer, he discussed some aspects of his life for the first time with the project staff. It was thus learned that he was presently on drugs and had been on a variety of drugs for some time. Furthermore, he was deeply involved in a contemporary evangelistic Jesus youth movement with his parents, spending all his outside school time (and frequently what should have been in-school time) in attending revivals and performing religious rock music. He was given information about state drug programs. However, he insisted that "help can only come from God," and as long as God wanted him to do something, he would continue to do it. It could not be helped.

Of the other three male caregivers at the Kittredge center, Ed was the most successful. He was dependable, gentle, and good with the children; he expressed great satisfaction in working with them. Therefore, when he decided to leave teaching in favor of going into business with a partner, the news was received with real disappointment by the teachers and the project staff. Since he left, he has been back frequently to visit with the children and occasionally to work as a substitute teacher.

Since Ed's and Aubrey's withdrawals from the project took place well into the school year, recruitment of new male caregivers presented an additional problem. In most cases, interested young men had already committed themselves to a schedule of studies and could not set aside a block of five hours during the day for the job. After efforts at finding high school students for these openings failed, considerations for expediency of time prevailed and it was decided to employ two male college students during the remaining part of the second project year. Thus, Irwin and Alex, both seniors at Emory University, were employed to work with the preschoolers and the toddlers, respectively.

Irwin, Alex, Eric, and Bob stayed with the project until its conclusion at the end of June, 1973. Teachers with whom these men worked evaluated the college men, in general, much more highly than the high school men. Dependability and initiative were the most commonly cited reasons for their success. Of the high school men, Eric's teaching performance continued to be quite satisfactory. For a good part of the year, he was given his own group of children for various instructional activities. It was somewhat difficult for him to work with a large group of children, mainly because of his tendency to devote attention to only a few children at one time and work with them in depth. The resultant semi-chaotic atmosphere created by the other children in the group was a source of aggravation for the other teachers in the area. When allowed to work with very small groups or individual children, he was at his best and happiest. The female teacher he worked with had observed the verbal stimulation he provided the children and encouraged him to work with individual children along these lines. The other high school senior at Kittredge, Bob, failed to perform at a level that was completely satisfactory to meet the demands of the female teacher with whom he worked. He was slow in employing positive reinforcement techniques and his modeling skills were poor in that he could not successfully imitate effective teaching behaviors. His occasional tardiness was also problematic. On the other hand, he was praised for his gentleness and physically affectionate behavior toward the children, as well as his encouragement of the children toward group sports activities. (See Appendix H for the evaluations of the male caregivers at the conclusion of the second demonstration year.)

Donner Center. At Donner, Dan, Ted, and Bill worked in the mornings with the five-year-olds, preschool children, and the toddlers, respectively. John worked in the afternoons mainly with the preschool children. All four young men stayed with the project until its conclusion in June, 1973.

All of the Donner men performed quite satisfactorily and no major behavioral problems were encountered throughout the year. Although all made advances toward better success at their jobs in terms of criteria such as responsibility, initiative, dependability and skillful implementation of teaching objectives, the two male caregivers who were going through with their second year with the project especially stand out. They were completely at ease with their teaching responsibilities and were highly motivated. They became increasingly more open about themselves, freely communicating their feelings and ideas.

The Donner male caregivers comprised roughly forty percent of the total teaching force at this center. Thus, strong demands were made on them in terms of dependability and meeting standards of performance. They rose to the task, so to speak, becoming an integral and effective part of the teaching force. They were not bewildered by the presence of a large group of children. They remained in control, conducting their teaching activities admirably. They were entirely capable of taking care of large groups of children on field trips, which they regularly arranged. They could be relied upon to maintain the scheduled instructional activities in the absence of the female teachers. In fact, generally and subjectively speaking, they performed better in the absence of the female teachers, when they were entirely on their own.

Occasionally, with some female teachers, conflicts arose with respect to the male caregivers not doing what they (the females) asked them to do. In the words of the lead teacher, the males occasionally tried to "play games" with the female teachers and even with herself.[14] Another source of conflict apparently involved a preferential treatment of the men by the lead teacher. This lead teacher regularly spent many in-service training hours individually with each male caregiver, giving him assistance and guidance as well as new responsibilities in the light of his individual progress pattern. She did this kind of in-depth work with all of her teachers. However, she agreed that she may have given the men more leeway since she perceived them as being half-employees and half-students trying to achieve competence in a new field. (See Appendix H for final evaluations.)

Responses of the Male Caregivers to Questionnaires and Interviews

In order to assess changes which occurred in the male caregivers during the second demonstration year, a questionnaire (see Appendix I) was given to each male at the beginning of the experience and again at the end of the experience. In addition to the questionnaire, each male was interviewed after he had completed the questionnaire the second time. The interview was conducted in order to clarify and amplify the males' written responses to the questionnaire. The changes which were of particular interest were those concerning the males' attitudes regarding males in preschool programs, their attitudes about how such an experience might affect their future plans, how their family and friends responded to their experiences in the preschool, and whether the males thought they responded differentially to boys and girls. The following is a summary of the responses given to the questionnaire at the beginning of the experience as well as at the end of the experience, and it includes the responses to the interview at the end of the year. Changes which were apparent as a result of comparing the answers to the initial questionnaire with the answers to the latter questionnaire and interview are indicated.[15]

The primary difference between the initial responses to the questionnaire and the responses at the conclusion of the year was that the latter were much more detailed and perceptive. This difference was attributable somewhat to the interview, in which it was possible to clarify and obtain examples of some of the males' written answers, but that was not the whole story. Initially many of the questions were answered with one word: "no," "yes," "sometimes." This occurred only once in the written responses at the end of the experience. Eric, in fact, required two legal-sized pieces of paper in addition to the spaces provided on the questionnaire itself in order to complete his answers. It appeared that the males had become so involved in the project that they had things that they really wanted to express. Many of their responses were the expected ones, some were surprising, a few were insightful.

Alex continued in his belief that his only uniquely male contribution was to those children who had no fathers and for whom Alex could demonstrate that males were not as ominous as the children might have supposed. Eric continued to convincingly defend his position that the unique services he provided were not necessarily because he was male but could have been attributed to a number of other factors: being a part-time teacher, being a subordinate teacher, lacking the experience of a teaching career, being younger than the other teachers, having more time and energy for the children, being more spontaneous and pragmatic, and being more accessible to the children. Whatever their reasons, the males at Kittredge concluded their experience with the belief that males were definitely important to both little boys and little girls and particularly to those without fathers.

The males at Donner continued to specify that the provision of a father image was one of their most important contributions to the children. By the time of the second administration of the questionnaire, the Donner males were unanimous in their emphasis on the importance of the physical activities which they provided, especially out-of-doors. Unlike Kittredge, the males at Donner indicated that they felt that they were more important for the little boys than for the little girls. The Donner males also felt that they were better disciplinarians than the female teachers were.

When asked about their relationships with other staff members at Kittredge, Eric and Irwin continued to feel accepted as teachers. Alex's attitude changed; at the end of the year he expressed some discomfort. Alex had felt pressure to conform to the female teachers' way of teaching and handling children. He was eventually put into the role of disciplinarian by the teachers, and this apparently made Alex most uncomfortable. Although he talked with the lead teacher about this problem, the situation remained unsatisfactory for Alex.

There was also a marked change in the attitudes expressed by the males at Donner with respect to their relationships with the other teachers. While no negative attitudes had been indicated at the time of the first administration of the questionnaire, by the end of the year all sorts of resentments poured out: "It is embarrassing to be ordered by a female--it makes you less masculine;" "they (the female teachers) are not strong enough to order me around--they're weak." Ted and Bill were the strongest in their expression of resentment to the female teachers. Dan thought that the female teachers had treated him as though he were a student at first, but later they gave him more leeway.

The males at Kittredge all felt quite accepted by the children. Among the first responses discipline, control, and respect were the primary concerns, whereas by the end of the year the males were talking about how the children enjoyed them and sought their attention. Although challenge to authority was still remembered, Alex said that the longer he worked in the project, the more the children got used to him, and they became more secure and open with him. Bob, who was the only black male working at Kittredge which is virtually an all white school, did not have an opportunity to respond to the questionnaire at the beginning of the experience, but there was no doubt from his responses at the end of the year that great changes had occurred: "When I first came, everybody seemed to wonder who is this guy. Now, we love one another and are so close."

At Donner, too, the males had been challenged and tested initially by the children. Although this testing period was remembered at the end of the year, there was evidence of change. The children played rougher; boys were rougher than girls, but both sexes had become notably rougher. Each of the males named children who had grown particularly close to him. Some of these children had literally been afraid of the males when they first appeared, but those same children followed the males around by the end of the year. One little girl who rarely spoke at first began to speak frequently.

The male caregivers at Kittredge continued to receive favorable comments from the parents of the children throughout the year. Irwin received requests from two mothers to have their sons put into Irwin's class. Alex's popularity was particularly evident when some of the parents reported to him that their children cried for Alex when the children were at home. Irwin felt that mothers showed more interest in the male caregivers than the fathers showed. However, when the fathers did talk to the males, the fathers, too, expressed pleasure at having the male teachers work with their children. One father was particularly pleased that Bob was playing football with his son.

Bill reported that the children at Donner had grown so attached to him that the parents reported to Bill that their children sang songs about him or called his name after the children had gone home. Ted reported that the parents had noticed that the children really enjoyed the company of the male teachers. Evidence of the far-reaching impact of the males came from the mother who reported that her husband no longer just sat and watched television; indeed, the husband had begun to do things around the house because he had observed the male teachers working at the center. On the more negative side, one mother complained after her son had bumped his head that the male teachers were playing too rough with the children. Dan felt strongly that most of the mothers, being unaware of the male caregivers' purpose at the center, thought that the males were just there to assist the other teachers.

With the exception of Alex, the males at Kittredge reported that they had not been teased about their jobs. Alex said that his female friends thought that Alex had a good job, but they did tease him about it. Eric reported that he surprised himself on one occasion by hesitating to tell a male friend about his job, but he never hesitated to tell his female friends about his job. Eric also reported that his friends felt that he had done pretty well for himself, compared to other high school students. These reactions were at least more descriptive if not decidedly more favorable than the initial consensus of friends reacting to the caregiving job "just as they would to any job."

Initially, the remarks of the Donner males with regard to their friends' reactions to their jobs were fairly noncommittal. At the final interview time, however, Ted admitted that his friends used to "jive" him about his job. Each of the males reported that his friends had generally not taken him seriously when he told them about his job. All of the males denied any threat to their masculinity as a result of their job. Ted and Bill's friends even expressed a desire for a similar position.

The families of the Kittredge males appeared to have grown more enthusiastic about the male caregivers' jobs. Mothers remarked about the good experience their sons were getting. Eric's parents specifically said that the job had been responsible for some positive changes in Eric: He was more open with others and could be more himself. Fathers were less verbal with regard to their feelings about their sons' jobs. Irwin's father asked him about his job, but he did not think his father really understood what he was doing. Bob had not discussed his job with his father, even by the end of the year, but Bob still believed that his father would feel that the job was too feminine for his son. None of the males reported making regular contributions to his family's income, but several did give gifts to their families and contributed when a need was indicated.

After initially bland responses of approval by the families of the male caregivers at Donner, the comments at the conclusion of the experience ranged from mild disapproval to overwhelming enthusiasm. Ted thought that if his father understood the nature of his job, he would disapprove. Bill's father, on the other hand, was encouraged that Bill was making something of himself. If Bill decided to continue working with the children as a career, his father would be happy. All of the mothers of the males were exceedingly pleased about their sons' jobs. Apparently Ted's worth as a babysitter for the children in his family increased, and it was not clear that Ted was altogether pleased about that added demand. Again, none of the males made regular contributions to their families' support, but they did donate money to their families when they felt it was needed.

While Alex's wife continued to be supportive of Alex's job to the point of working with him at Kittredge one night per week, Irwin's wife remarked that Irwin was picking up bad habits from the children. Eric's girl friends remained interested in Eric's job, but Bob admitted that his girl friends teased him, "That's a female's job." Bob felt that the girls were jealous of his job with the children.

The girl friends of the Donner males also changed from thinking the job was "nice" to wanting a similar job. Dan remarked that he could change diapers better than any of his girl friends. Bill felt that he was more popular with the girls because of the additional money provided by the job.

At the time of the initial administration of the questionnaire, Eric was the only male at Kittredge to list some specific behavioral differences between little boys and little girls; Dan at Donner made one differentiation, and his was the only one made by the males at Donner. At the end of the year, every male at both schools specified behavioral differences between the sexes. Alex thought that the little boys in the nursery made greater attempts at "team play" than did the little girls. Alex described the little girls as more "self-conscious" and wanting primarily to play "mommy and daddy." Bob reported that in the preschool the little girls seemed to be telling the little boys what to do. Eric remarked that, contrary to some opinions, kindergarten girls do not necessarily have greater verbal skills than the kindergarten boys, but in strictly free play the little girls do talk more while the boys are more physical. John thought that the girls were more stubborn than the boys, and certainly, the little girls tattled more.

The males at Kittredge progressed from initially not really addressing the question to a few examples at the end of the year of how little girls and boys differed in their responses to male and female teachers. Little girls went to Bob to be cuddled, but the little girls did not approach a female teacher for such attention. On the playground, Eric observed that neither little girls nor little boys approached the female teachers, probably because the female teachers tended to sit and talk among themselves. Little boys seemed to want the male teachers to do things with them, while the little girls wanted things done for them. At Donner, John observed that both sexes of children responded better to a male when they were out-of-doors but responded better to a female inside. Ted thought that all children went to the male teachers for help before they went to a female teacher.

Responses to the question of whether the males interacted differently with little girls than they did with little boys were not considerably more detailed at the end of the year than they had been initially. All agreed that they took their cues from each individual child, but Alex added that he was aware of the sex of the child with whom he was interacting and reacted accordingly. Eric continued to respond to the particular behavior the child exhibited. At Donner, the males were consistent in reporting that they protected the little girls from the rough games in which the boys were encouraged to participate. John said that indoors he reacted the same with male and female children.

The males in both schools appeared to be more aware by the end of the year of the differences in what male teachers reinforced and punished, as compared with what female teachers reinforced and punished. The only differences mentioned initially were Eric's response that he reinforced math and small motor skills more than the female teachers did, Irwin's observation that female teachers were much stronger than male teachers in their admonishments to the children about fighting, and Dan's feeling that male and female teachers differed in the punishments administered to boys and girls. Irwin realized later that female teachers were more conscious of mess and tried to avoid it. Alex felt that he encouraged the little boys to be more independent and to engage in physical play. While Alex and Eric felt that they disciplined little boys more, Bob said that male teachers were more gentle and soft. Female teachers showed more concern that the children might get hurt. The males at Donner continued to maintain that there were few differences between the behaviors punished and reinforced by a female teacher as compared with those punished and reinforced by a male teacher. However, Dan believed that a female teacher would let a female child get away with something that the male teacher would not let her get away with. The same sort of thing occurred where little boys and male teachers were concerned.

All of the males at Kittredge agreed that the teaching experience had been a positive one, both initially and at the end of the year. Alex's list included those cited by others also: It increased his understanding and appreciation of little children; it perhaps made him more openly affectionate and less self-conscious; it provided him with many new friends and helped him to get a summer job; it reminded him of the overbearing importance of early childhood experiences and home environment in forming the personality, and especially the influence of the parents. The males at Donner emphasized that the experience would make them better fathers as well as having already made them more relaxed, more fun to be with, and more responsible.

When asked what things they would put more or less emphasis on if they were not working in a female world under female supervision, the responses continued to be primarily concerned with a greater emphasis on physical activities. By the end of the year, Irwin was tired of the rigid adherence to time schedules, the unreasonable demands made by a few parents, and the blind obedience of the female teachers to the policies determined by the corporate office. At Donner, Dan wanted more physical activities and more freedom; both Dan and Bill wanted an all-male preschool (but Bill finally conceded that one should have some females for the little girls and maybe even for the little boys too).

By the end of the year, Irwin and Alex had some definite complaints about the female-dominated environment at Kittredge. For Irwin, this was not a change, for he had complained about rigid schedules and lectures on "respect for crayons" since the beginning of his experience. Alex, on the other hand, had not expressed any particularly strong resentments initially, but at the end of the experience he reported that he would have resented a direct command from a young female and had no intentions of pursuing a career in a female-dominated field. He did cite other reasons for not wanting a job in a female-dominated situation: He was not interested in any of the fields that are presently dominated by women, and he would be limited in advancements because he would be a minority member.

The males at Donner were different from those at Kittredge in that the Donner males continued throughout the year to indicate that they liked working in the female-dominated environment. It was great and rewarding, as well as being fun. Dan recommended that any male who did not mind being underpaid and who was interested in providing quality education for children should try a teaching experience--he might like it.

Male Caregivers: Test Results

The male caregivers, during their first two to three weeks in the program, were administered the following tests, which were again administered to them at the conclusion of the demonstration year:

(1) Peabody Picture Vocabulary Test (PPVT) (Forms A and B)

(2) Embedded Figures Test (EFT) (Forms A and B)[16]

(3) Adjective Check List (ACL)

(4) Terman-Miles Masculinity-Femininity Test (T-M)[17]

(5) Miller Locus of Evaluation and Control Scale (LOE-C)

(6) Black Intelligence Test of Cultural Homogeneity (BITCH)[18]

(See Appendix J for exact references to these tests).

The data to be described presently are based on the initial and final performances on these tests of the 13 male caregivers who participated in either the first and/or second year of the project. There were three young men who stayed with the project for two years. For these young men, their first year scores alone were included in the analyses.

(1) PPVT: The average I.Q.'s of the male caregivers remained the same from the time of initial testing (M = 96.38, SD = 26.77) to the final testing at the end of the demonstration year (M = 94.62, SD = 31.75). Thus, at either test time, the young men could, as a group, be described as "average learners."

However, the individual differences in the group were very high. With a range of 63 to 141 and 52 to 139 at the initial and final test times respectively, the extremes of population classifications, in terms of very slow and very rapid learners, were represented within this small group.

(2) EFT: There was a significant change toward decreased scores, thus toward greater field-independence, among the male caregivers from the time of the initial testing (M = 55.61, SD = 30.95) to the time of the final testing (M = 23.13, SD = 12.18) ($t = -4.114$, $df = 7$, $p < .01$). At the initial test time, the male caregivers were more field-dependent than the norms indicated in the test manual for their sex and age groups. In fact, they were more field-dependent than girls at the same age level. However, at the time of the final testing, the young men had become considerably more field-independent than their sex and age group, again according to the norms provided in the test manual (p. 18).

(3) ACL: Within a standard score range of from 0 to 100 with 50 as the mean, the mean scores of the male caregivers on all variables were within 10 points of the mean at both the initial and the final test times.

The only changes observed at the end of the demonstration year took place with respect to two variables:

(1) Number of adjectives checked: The mean number of adjectives checked at the final test time was significantly higher (M = 50.23, SD = 9.08) than the mean obtained on the initial measure (M = 45.23, SD = 9.45) (t = 2.912, df = 12, $p < .02$), thus possibly reflecting a changed toward increased "surgency and drive, and a relative absence of repressive tendencies" from an earlier tendency "to be quiet and reserved, more tentative and cautious" in approaching problems (Test Manual, p. 5).

(2) Lability: There was a significant increase in lability among the male caregivers from the initial test time (M = 49.38, SD = 9.88) to the final test time (M = 55.15, SD = 11.85) (t = 2.412, df = 12, $p < .05$). This is possibly a change in their attitudes toward change itself, indicating increased openness to new experiences, and "a sensitivity to all that is unusual and challenging" (Test Manual, p. 7).

(4) Terman-Miles: The average score on this test of masculinity-femininity at the time of final testing (M = 32.85, SD = 30.30) was significantly higher than the average score for the male caregiver group at the time of initial testing (M = 10.46, SD = 31.58), the higher scores being in the masculine direction (t = 3.167, df = 12, $p < .01$). The males, as a group, scored considerably lower than the Alpern (1960) sample of college males at both test times, despite the significant change they displayed

toward greater masculinity at the end of the demonstration year.

(5) LOE-C: There was no difference between the average locus of control (LC) scores of the male caregivers between the initial (M = 34.69, SD = 5.76) and final (M = 33.69, SD = 7.52) test times. However, in terms of locus of evaluation (LE), the male caregivers showed a slight change toward greater internalization of "a set of values or standards by which actions are judged" (Initial: M = 35.38, SD = 7.46; Final: M = 37.92, SD = 6.71) (t = 1.814, df = 12, $p < .10$). The average scores of the males on the LE and LC dimensions were comparable to the college group norms on this test provided in the literature (Jones, 1965; Mothersill, 1965).

(6) BITCH: The mean transformed score of the male caregivers at the time of the final testing (M = 50.25, SD = 3.54) was significantly higher than their mean score on the initial test (M = 47.88, SD = 4.61) (t = 3.053, df = 7, $p < .02$). As on the PPVT, on this culture specific test of black intelligence, the young men as a group performed at an average level.

Discussion and Impressions

The following are some observations and impressions in the light of the present project which may prove helpful to those who seek to employ young males as caregivers.

It has been demonstrated through this project, "Male Workers in Day Care," that young men, high school and college age, can be successfully recruited and trained to work on a part-time basis as caregivers for preschool-age children. Furthermore, it has been shown that caregiving can be a very rewarding and enjoyable experience for the young men involved. In addition to the attainment of specific teaching skills, a sense of enjoyment and a certain personal fulfillment were stated by all male caregivers as being among the rewarding outcomes of participation in this project. At the end of the project, the males evaluated themselves as having become more competent, more responsible, and emotionally more secure. They all displayed increased interest in children and the human developmental process, and for a few young men, new career possibilities materialized.[19] Their co-workers and supervisors evaluated the males as having become more confident in themselves, more competent and responsible in their jobs, and more open in their interactions with others. According to test results, the male caregivers had become more masculine, more field-independent, and in terms of cognitive styles, more analytical by the end of the project. They were increasingly more open to novel experiences and were more flexible and adventurous.

The recruitment of high school students to work as male caregivers in day care centers presently appears to be easier in predominantly black inner-city high schools, especially those schools where work-study programs are in effect. Administrators of predominantly white suburban high schools were found to be relatively unreceptive to the idea. These high schools mostly maintain traditional academic curricula, adhering to quite inflexible schedules. This rigidity of the academic system, justified in terms of a concern for the "maintenance of academic excellence," was usually the reason given for the uninterest among the suburban high school administrators. However, rigidity of attitudes was also evident in certain instances where administrators clearly felt that employment as caregivers was unsuitable for young men. This attitude was not encountered among the inner-city high school administrators.

Vocational schools, adult education schools, schools with work-study programs, and especially colleges appear to provide good possibilities for recruitment of young men to work as part-time caregivers in suburban day care centers. College students, demanding relevance in education, were found to be keenly interested in programs of this nature. They are willing to work for the same wages as high school students. They are also easier to recruit because of the flexibility of their schedules.

A good approach to high schools for recruitment purposes is through counselors. Interested counselors can be effective in achieving general interest about male workers in day care among the administrators as well as the students. They can also be helpful in screening the candidates, and in working with the day care centers toward achievement and maintenance of teaching skills among the recruits.

It must be pointed out that there was never any problem in the recruitment process for this project with respect to the availability of young men who were interested and willing to participate in the caregiving of the young. Apparently, many young men today do not view the caregiving process as an exclusively feminine domain. Neither do they see active participation in day care as representing a possible threat to their masculinity.

In terms of the successful performance of caregiving responsibilities, older high school men (juniors and seniors) were found to be easier to train and more likely to maintain a satisfactory level of performance than younger men. At age sixteen or thereabouts, young men may have too many conflicts about their own identity and independence to be effective male caregivers. One possible area of conflict probably involves feelings toward authority. Although intensified in the case of the younger high school men, it may continue to be a pro lem also with the older high school students. As one young m put it, the high school males are constantly pushing to test t limits of authority, constantly pushing their supervisors in att pts to redefine the borders of their autonomy. On the one hand they almost demand a more directive and "authoritarian" approac from their supervisors since, lacking this kind of supervision they lapse in their teaching performance and responsibilities Given this approach, however, they are unhappy to be treated " ke a child" and want to be treated "like an adult." And so he cycle goes on, probably further complicated by problems masculinity in certain cases. Several young men mentioned a re ntment toward being supervised by females. They stated feeling ore comfortable when supervision was carried on in a non-o ious manner, particularly when the female teachers approac d them in such a manner as to play upon or enhance their mascu nity. Thus they preferred supervision by young females to ing supervised by older females. They could treat the young femal supervising teachers as being their equals and frustrate them ccessfully with their constant "game" of pushing the limits, wh eas the older female supervisors did not tolerate such behavior. herefore, the younger teachers had more problems with the high hool men than did the older supervisors. The high school me in general, felt happier being supervised by younger teachers (uld get away with more??) than by older and more "authoritarian" ones, although their performance was much better under such supervision.

Conflicts such as those mentioned above are usually resolved or lose their intensity with increasing age. College age men may (and quite frequently do) have similar conflicts. Barring extreme cases, however, they can usually effectively control these feelings, which have lessened in intensity, with less likelihood of any adverse effects on their job performance. Thus, during the two years of this project, the older high school students and college men were found to be the most successful caregivers, age being almost perfectly correlated with success.

Several conditions which prevailed in this project may represent attenuating circumstances in terms of optimal male modeling. The young men were all part-time employees with much less responsibility than the full time teachers, a fact which probably reduced their effectiveness as male models in the eyes of the children. By not being there all the time and also because of their status as trainees, they were "second-class" teachers who did not have a voice in the daily or long-term decisions or policies. According to at least one male caregiver, this situation accurately reflected the mother-dominant American family where mother knows best and the children go to her when decisions need to be made. Children recognized this difference in status between the male and female teachers and looked upon the females as their "real" teachers. This effect was further accentuated at Kittredge where the enrollment was very large and the four part-time males represented a very definite minority among a full time teaching staff of 15 female caregivers. Donner had a small enrollment (41-43 children), and the ratio of the male caregivers to the female caregivers was much smaller, approximately two to three.[20] Thus, with much smaller male teacher to female teacher and teacher to child ratios, the Donner men, unlike the Kittredge men, became quite an integral and effective part of the center, in spite of the fact that they were also part-time trainees.

The age difference between the male and the female caregivers may also have contributed to the confounding of effective male modeling. Although the female teachers were quite young, the age difference between them and the males in most cases was close to 8-10 years. Thus, they had a tendency to view the young men as "boys," occasionally treating them almost in the manner of older children, allowing them leeway and even taking care of them to the extent of assuming chores they felt were not particularly enjoyable to them. This age difference and the correlated attitudes may have pushed the males closer to the children's age group and placed them in the role of older brothers, thus grouping the male caregivers with the children as a group under the direction, supervision, and dominance of the mother figure, the female teacher. College men and, to some extent, the older of the high school men, appeared to be able to escape being thus grouped with the children. They were accepted as almost complete equals by the female teachers and appeared to be much more effective with the children.

One other factor which may attenuate the male modeling effects is a "feminizing" attitude among the female teachers. They tend to reinforce male teachers for activities which reflect a definite female concern. For example, the female teachers are very concerned about the physical welfare of the children and interfere immediately when they feel the child is involved in a dangerous physical activity. The definition of what is dangerous is usually very different for male and female teachers, with female teachers taking a conservative position. The males, on the other hand, are more encouraging in terms of independence-competence trial and error activities on the part of the children. This does not mean that they are careless of the physical welfare of the child. It only means that they have a higher threshold, so to speak, before they interfere. The females tend to evaluate male teachers in terms of how similar their responses are to those of female teachers. Thus, a male teacher who conforms and becomes "feminized" in his responses in similar situations (i.e., interfering when a female teacher would) is reinforced and judged to be a successful teacher. Nonconforming males are judged not to be trustworthy and thus not successful.

Higher toleration of messy appearances among males is another case in point. Female teachers are disturbed about messy-looking learning areas and messy-looking children and tend to be critical of males in charge of such areas and children. Males usually do not even notice the messy appearances, let alone trying to remedy the situation. Those males who conform and become sensitive about messy appearances are strongly reinforced by the females and are judged to be good teachers. When the male caregivers constitute a minority among the teaching force of the day care center, this kind of selective reinforcement on the part of the female teachers tends to "feminize" the male in terms of the caregiving style. Possible ways of overcoming this attitude would include equal representation in terms of ratios and equal status of the males in the day care teaching world. Meanwhile, keeping communication lines open between male and female teachers with regular discussion of these and similar problems is helpful.

The presence of males is reacted to very favorably by almost all parents. Divorced or unmarried mothers are especially happy about the presence of the males since, otherwise, their children would have no male models in their daily experiences. Parents from intact families are enthusiastic about the introduction of males into day care since this provides the children with both sex models throughout the day, and tends to improve the relations of the children with their own fathers, especially in families where, due to job conditions, the father's availability to his children is very limited. Increased emphasis on sports that follows the entry of the males into the day care world is also very pleasing to many parents, especially fathers.

In conclusion, it can be stated that young men can be successfully incorporated into day care programs as caregivers. Part-time employment of high school juniors or seniors or college men in day care centers as caregivers presently appears to be a good and quite feasible way of opening the day care doors to male influence. Ideally, to maximize modeling effects, the males should be employed in "good" numbers in small day care centers. Employment of college men from the fields of child development, education, and psychology would be quite advisable since their backgrounds make them more equal to the regular full time teachers and thus increase their status. The prospects for the full time employment of young men as caregivers is rather grim at the present time, mainly due to the lack of satisfactory financial rewards for day care workers. As the numbers of male caregivers in early childhood education increase, pressure for more satisfactory wages may be expected. This point was frequently verbalized by female teachers as being a probable and very welcome outcome of males in day care. In addition to possible curricular changes in the system (i.e., increased time spent in sports and physical education), the female teachers felt that the presence of the males would encourage them toward a decreased preoccupation with housekeeping, tidiness, and the avoidance of messy appearances. Most importantly, however, according to the female teachers, a highly significant contribution of the males would be in terms of the increased assertiveness of the female teachers and their willingness to fight for their rights. It is quite apparent that the males are thus expected to be models not for the children alone but also for the female teachers.

CHAPTER III

Male Caregivers in Day Care: Impact on the Children

Subjects

First Demonstration Year

During the first demonstration year, children from the two experimental schools (i.e., schools where the male caregivers were employed) served as subjects. These schools were the Kittredge Springs and Donner Centers.

Kittredge Springs is an early learning center for economically advantaged children from middle and upper-middle income families. The center is financed by fees to parents. The children are predominantly white with a few blacks and orientals. The enrollment at this center remained around 170 children during the two years of the Demonstration Project.

The Donner Center is a center for economically disadvantaged children; it is supported by public and private funds. There are 41-43 children enrolled at the center, all of them black. (Both Kittredge and Donner Centers are described in more detail on pp. 7-8).

The actual subject pool during the first demonstration year consisted of 40 Donner children and 40 Kittredge children who matched the Donner children with respect to sex and age.

There were 21 boys and 19 girls in the Donner and Kittredge groups. The mean age for the Donner sample was 42.2 months while the mean age for the Kittredge sample was 44.9 months.

No control groups were employed during the first demonstration year.

Second Demonstration Year

During the second year of the project, control groups were introduced into the study. Another Family Learning Centers school, the Harobi Center, was chosen as the control school for Kittredge. The Trinity Day Care Center served as the control school for Donner. There were no males on the teaching staffs of these centers.[21]

The Harobi Center first started operation in the spring of 1972. Like Kittredge, it is a center mainly for the economically advantaged children and is financed by fees to parents. The fee scale is identical to that of Kittredge (see p. 7). The center is open between the hours of 7:00 a.m. and 6:00 p.m. for regular day care.[22] The daily activity schedules and curricula are centralized for all Family Learning Centers schools and thus are identical for Harobi and Kittredge. The enrollment is about 150 children, predominantly white with only a few blacks and orientals.

The Trinity Day Care and Child Development Center is a Head Start center for economically disadvantaged children. It is financed by federal funds and private funds from the community. The enrollment is predominantly black with only a few white children. There are 51 children at the center. Unlike the other centers involved in this project, children under the age of three are not admitted into the Trinity day care program. The center is open between the hours of 7:30 a.m. and 5:30 p.m.

At the beginning of the second demonstration year, 41 children, 21 boys and 20 girls, were enrolled at the Donner center. The entire population at Donner comprised the Donner sample. The mean age for this center during the second demonstration year was 41.9 months. Forty Kittredge children who matched the Donner children in age and sex were selected.[23] The Kittredge sample included these children and 11 other children, 9 boys and 2 girls, who had participated in the first year of the study. These 11 children had lost their Donner matches from the previous year. The mean age of the Kittredge sample was 44.3 months. The Harobi sample was comprised of 49 children who matched the Kittredge subjects in age and sex.[24] The mean age for the sample was 45.3 months. Similarly, 27 Trinity children, 12 girls and 15 boys, who matched the Donner group in age and sex, were included in the Trinity sample.[25] The mean age for this sample was 53.7 months.

Twenty-one of the Donner children, 10 boys and 11 girls, and twenty of the Kittredge children, 15 boys and 5 girls, were two-year subjects participating in both the first and second demonstration years.

Detailed demographic data are provided about the two experimental and the two control groups in Appendix K.

Evaluation Instruments

Tests

The major area of study was the sex-role associated behaviors of the children. The sex-role orientation (O), preference (P), and adoption (A) of the children were studied (Lynn, 1959; Biller, 1968). The following instruments were used:

Sex-role orientation
    IT Scale for Children (ITSC)
    Draw-a-Person Test (DAP)

Sex-role preference
    Rabban Toy Preference Test (RABBAN)

Sex-role adoption
    Biller Rating Scale (BILLER)

Another possible method of studying the sex-role orientation of a child is through a study of the psychological distance that the child places between himself and the significant others in his life, male and female. An index of overall interpersonal trust is also indicated by such a method. A modified version of a newly developed experimental instrument, the Comfortable Interpersonal Distance Scale (CID), was utilized for this purpose.

Performance on tasks of perceptual disembedding has been studied as being related to the sex-role and personality of the individual. The familiar concepts involved are those of field dependence-independence at the perceptual level and analytical style at the cognitive level. A test of perceptual disembedding, Preschool Embedded Figures Test (PEFT)[26] was included in order to evaluate this perceptual-cognitive dimension.

Two other instruments were utilized in this study, mainly in an experimental capacity. They are the "Interpersonal Perception Test" (IPT) and The Children's Picture Test of Internal External Control (LOC). The latter test was originally used with subjects older than the ones participating in this study. Due to the scarcity of tests dealing with recognition of interpersonal emotions and locus of control among preschool children, an experimental use of these two instruments was considered desirable from an informational standpoint.

Finally, the participating children were tested for verbal intelligence. The instrument used was the Peabody Picture Vocabulary Test, Forms A and B. (See Appendix L for exact references to all the tests mentioned in this section. Other pertinent information concerning the individual tests is given in the beginning of the respective results sections dealing with these tests).

Testing proceeded simultaneously in all centers involved in the project, two centers during the first and four centers during the second demonstration years. All children were tested individually. The initial testing started in September and the final testing started in April. Both test periods continued for approximately two months. The test assignments for each center were counterbalanced with respect to the sex and age of the child and the sex of the examiner.

The test results for the second year demonstration project are given in the next section. The first year results, which are based on data from only the two experimental schools, with no control groups, are included in Appendix M. The test results for the two-year subjects, 21 Donner children and 20 Kittredge children, (see p. 74) are included in Appendix N.

Time-Sampling Observations

Three sets of observations were conducted during this Demonstration Project:

(1) A set of observations dealt with the teacher-child behaviors in small group interactions. Of interest were the reinforcement and control styles of male and female teachers and the nature of attention-getting demands made on the teachers by the children. A new instrument, Interaction Checklist (ICL), was constructed for this purpose. This observational study was conducted during both years of the Demonstration Project. Only the experimental schools were studied. (See p. 120 for more information on the ICL).

(2) A second set of observations was directed at studying the sex-preferred play behaviors of young children and their

possible social consequences. ex differences in teacher and peer reinforcement patterns wer of special interest. This set of observations was an attempte replication and extension of a previous study in the literatur (Fagot & Patterson, 1969). The observations were conducted luring both years of the Demonstration Project. Only the exp imental schools were studied. (See p. 129 for more informati n on this set of observations).

(3) The third set of ob ervations was also an attempted replication (Walters, Pearce, & Dahms, 1957). Children's assertive-aggressive and affectional behaviors were studied. The question of major interest was hether the presence of the male caregivers at the experimental enters changed the proportionate frequencies of these behaviors nong the children at these centers. This observational study vas conducted only during the second demonstration year. All four centers were included in the study. (See p. 136 for mo e information on this set of observations).

Test Results:
Second Demonstration Year

The data from this project were interpreted with respect to a number of variables. In most cases, and unless otherwise noted, four variables were of particular interest. Differences and changes in the differences between centers were the primary means of assessing the effects of the male models. Thus, analysis of the data with respect to center was of fundamental importance. Sex was considered to be of almost equal importance. Many of the tests administered in this project were indicators of psychosexual development, and as such, differences between males and females were of interest. The chronological ages of the children provided the third variable of interest. This continuum was partitioned so as to be sensitive to age-related changes and differences. A fourth variable, father status, was recognized as being potentially important; however, in many cases, this factor could not be included since the resultant cell sizes were too small. When father status was included, two levels of this variable were used. The first level (present) contained those children who were living with either their real fathers or another significant adult male. The second level of father status (absent) contained those children who had neither a father, nor another significant adult male in their homes. When father status could not be included in the overall analysis of variance, other methods of analysis were employed to evaluate its effect. Analysis of the first year data indicated that a fifth factor, sex of the experimenter, was in most cases irrelevant. Thus, this factor was not included unless otherwise indicated. In general, the data were analyzed with respect to these factors with the aid of a revised version of the BMD computer program, BMDX64 (see Dixon, 1969.) This program has the capability to test hypotheses that are derived from unequal-cell-size designs. The analysis performed by this program is based on a Type I (fixed effects) linear model, and the variables listed above were all between-subjects factors. The information provided by this program was often helpful in determining the course of further analysis.

IT Scale for Children

The IT-test is a semi-projective test of sex-role orientation in young children. The test is made up of three subtests. The total scores range between 0 (the most feminine score) and 84 (the most masculine score). A special method of presentation was adopted that was designed to eliminate the pseudo-masculine responses obtained from girls due to their false assumption that IT was a male child. This special method involved putting the picture of IT in a sealed envelope and not allowing the child to see the picture at any time (Lansky & McCay, 1963).

The ITSC was administered to all the children participating in the study in the beginning of the second demonstration year, in September (initial test), and also at the end of the same demonstration year, in May (final test).[27]

Two four-way analyses of variance were performed, one on the initial test results and another on the change scores, the change scores being defined as the final test score minus the initial test score. The four factors under investigation were: (1) center (Kittredge, Harobi, Donner, Trinity); (2) sex of the child (male, female); (3) age of the child (four-year-olds: 54 months and younger; five-year-olds: 55 months and older); and (4) father status (present, absent).

Initial test results. The main effects of center (F = 3.587, df = 3,114, $p < .05$) and sex (F = 77.752, df = 1,114, $p < .001$) were found to be significant.

The average score of the Trinity children on the ITSC (M = 48.68, SD = 17.64) was higher than the average score obtained by the Donner children (M = 41.14, SD = 14.56) (t = -2.00, df = 21, $p < .06$). For the upper-middle SEL schools, there was a similar tendency for the control school (Harobi) children (M = 54.79, SD = 19.95) to score higher than the children from the experimental school (Kittredge) (M = 49.24, SD = 26.02).

Boys ($M = 59.97$, $SD = 15.96$) scored higher than girls ($M = 34.42$, $SD = 16.79$), higher scores being in the more masculine direction.

There was a significant interaction of sex by age ($F = 19.489$, $df = 1,103$, $p < .01$). The five-year-old boys ($M = 65.84$, $SD = 13.19$) scored higher, thus were more masculine, than the four-year-old boys ($M = 53.19$, $SD = 16.37$) ($t = -3.55$, $df = 67$, $p < .001$). The five-year-old girls ($M = 29.38$, $SD = 16.89$) scored lower than the four-year-old girls ($M = 40.50$, $SD = 14.81$) ($t = 2.52$, $df = 51$, $p < .02$). Looking at each age group separately, the four-year-old boys were found to be more masculine than the four-year-old girls ($t = 2.99$, $df = 54$, $p < .004$). Similarly, the five-year-old boys had higher ITSC scores and thus were significantly different in terms of their sex role preference from the five-year-old girls ($t = 9.85$, $df = 64$, $p < .001$).

Change scores. No significant main effects or interactions were found.

Summary. On the initial test scores the boys were found to score higher than girls, higher scores indicating greater masculinity. The children from the control schools were, on the average, more masculine than the children from the experimental schools. There was an interaction of sex by age. The older boys were more masculine than the younger boys; the older girls were more feminine than the younger girls. Within each age level, the boys were more masculine than the girls. The analysis of the change scores indicated no significant main effects or interactions.

Draw-a-Person Test

Human figure drawings provide a possible way of assessing the sex role orientation of young children. The Draw-a-Person Test was administered to the subjects in September and again in May. The sex of the first figure drawn was taken as a measure of the underlying sex-role orientation of the child.

Initial test results. Chi-squares were performed for each center to test whether the two sexes initially differed with respect to the sex of the first figure drawn. The results are summarized in Table 9. For Kittredge ($\chi^2 = 9.586$, $df = 1$, $p < .01$), Harobi ($\chi^2 = 10.720$, $df = 1$, $p < .01$), and Trinity (Fisher's Exact Test $p < .02$) there was a significant relation between the two variables. When asked to draw the picture of a person, a significant majority of the boys and girls at these centers drew the picture of somebody of the same sex as themselves, thus displaying "proper" sex-role orientation. At Donner, there was a similar tendency; however, it failed to reach significance.

Table 9

Draw-a-Person: Initial Test

Sex-of-Figure Choices of the Children
for the First Figure
(expressed as percentages)

Sex of Subject	Sex of First Figure Drawn	
	Male	Female

Center: Kittredge

Male (N = 22)	77.3	22.7
Female (N = 15)	20.0	80.0

Center: Harobi

Male (N = 17)	82.4	17.6
Female (N = 13)	15.4	84.6

Center: Donner

Male (N = 12)	66.7	33.3
Female (N = 11)	27.3	72.7

Center: Trinity

Male (N = 10)	90.0	10.0
Female (N = 9)	33.3	66.7

Final test results. At the time of the final test, the initial test findings were completely reversed. As can be observed in Table 10, there was a significant tendency among the Donner children, especially boys, to draw a person of their own sex first, thus displaying increased appropriateness of sex-role orientation ($\chi^2 = 12.955$, *df* = 1, $p < .001$). Among Kittredge, Harobi, and Trinity children, the percentage of appropriate choices dropped sharply among boys. Among girls, there was a decrease in the number of children drawing a female figure first in all three centers with the Harobi girls displaying the greatest decrease (26 percentage points). For the Kittredge and Trinity girls, the drop was slight in comparison, approximately 6 and 3 percentage points respectively. The sex of the first figure drawn was found to be independent of the sex of the child in all three of these centers.

Rabban Toy Preference Test

The Rabban Toy Preference Test is a test of sex role preference in young children. "Sex role preference may be operationally defined in terms of the preferential responses of children to sex-typed objects..." The test consists of 16 three-dimensional toys; eight of the toys are clearly masculine (gun, tractor, dump truck, racer, fire truck, cement mixer, soldiers, and knife) while the other eight are typically

Table 10

Draw-a-Person Test: Final Test

Sex-of-Figure Choices of the Children
for the First Figure
(expressed as percentages)

Sex of Subject	Sex of First Figure Drawn	
	Male	Female
Center: Kittredge		
Male (N = 24)	58.3	41.7
Female (N = 19)	26.3	73.7
Center: Harobi		
Male (N = 24)	62.5	37.5
Female (N = 19)	42.1	57.9
Center: Donner		
Male (N = 16)	93.8	6.3
Female (N = 16)	25.0	75.0
Center: Trinity		
Male (N = 13)	76.9	23.1
Female (N = 11)	36.4	63.6

feminine (high chair, oven, crib, beads, dishes, purse, doll, and bathinette). The masculine and feminine toys were arranged alternately and the child was encouraged to choose the toy he preferred without replacement until he had made eight choices. Each choice of a male toy was scored as one point so that the total possible score for each subject was eight. A score of eight was the most masculine score possible and a score of zero was the most feminine score possible.

The RABBAN was administered to the subjects in September and again in May.

The variables considered in the analysis of the RABBAN scores were : (1) center (Kittredge, Harobi, Donner, and Trinity); (2) sex (male or female); (3) age (four-year-olds: 54 months and younger; five-year-olds: 55 months and older); and (4) father status (present or absent).

Initial test results. Initially there was a sex by age interaction ($F = 13.42$, $df = 1,131$, $p < .01$). The five-year-old boys ($M = 6.487$, $SD = 1.41$) scored significantly more in the masculine direction than the four-year-old boys ($M = 5.27$, $SD = 1.27$) ($t = 4.13$, $df = 80$, $p < .001$). There was no significant difference, however, between the scores of the five-year-old girls and the scores of the four-year-old girls.

There were also main effects of sex ($F = 179.35$, $df = 1, 142$, $p < .001$) and age ($F = 4.72$, $df = 1,142$, $p < .05$). The boys

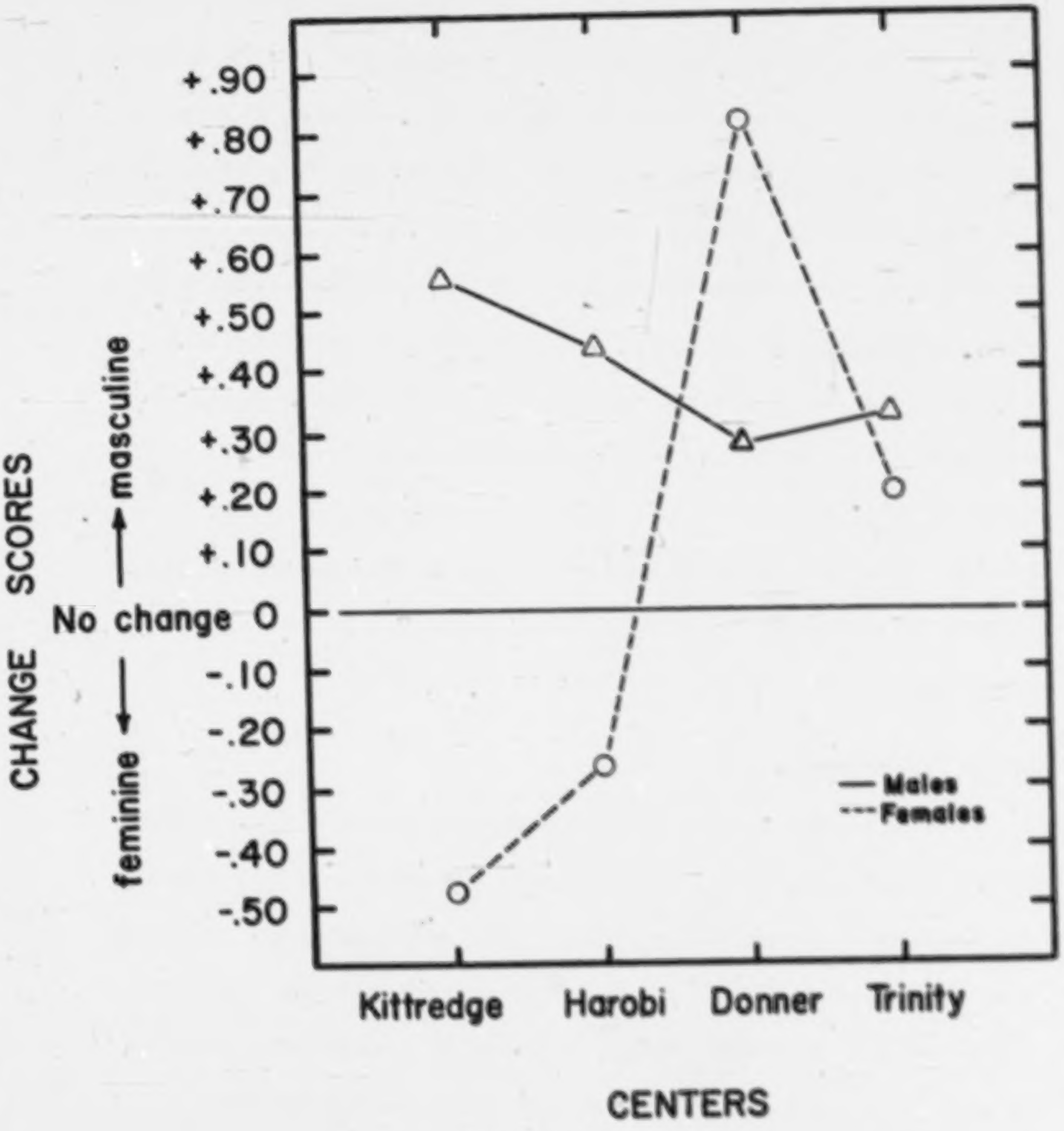
(M = 5.82, SD = 1.46) scored significantly higher (which is the masculine direction) than the girls (M = 2.84, SD = 1.42) (t = 12.60, df = 148, $p < .001$). The five-year-olds (M = 4.86, SD = 2.39) scored significantly higher than the four-year-olds (M = 4.17, SD = 1.75) (t = -2.03, df = 148, $p < .05$).

Change scores. There was an overall significant change (M = 0.245, SD = 1.359) from the initial score (M = 4.47, SD = 2.07) to the final score (F = 4.64, df = 1,142, $p < .05$). Donner was the only center where there was a significant change (initial scores: M = 4.29, SD = 1.64; final scores: M = 4.83, SD = 1.51) (t = -2.33, df = 34, $p < .03$). Within the centers (see Figure 1) the males at Kittredge changed significantly in the masculine direction (initial scores: M = 5.65, SD = 1.41; final scores: M = 6.31, SD = 1.23) (t = -2.41, df = 25, $p < .03$), and the girls at Donner became significantly more masculine (initial scores: M = 3.18, SD = 1.29; final scores: M = 4.00, SD = 1.23) (t = -2.08, df = 16, $p < .06$). One other finding was that the change for the girls at Kittredge in the feminine direction (M = -0.47, SD = 1.43) was significantly different from the change for the girls at Donner, who became more masculine (M = 0.82, SD = 1.63) (t = -2.55, df = 34, $p < .02$).

Summary. The initial test scores indicated that the older boys were significantly more masculine than the younger boys, while the older girls were not very different from the younger

Figure 1

Change Scores on the RABBAN:
Center by Sex



girls. Boys were significantly more masculine than girls, and five-year-old children were more masculine than four-year-old children. The change from initial to final scores was significant in the masculine direction. Only the experimental centers showed any significant differences: Donner, as a whole, changed in the masculine direction with the girls at Donner apparently being responsible for the move in the masculine direction, while the boys showed no change. At Kittredge, on the other hand, it was the boys who changed significantly toward masculinity while the girls showed no change from their initial to their final scores. However, when the change for the Kittredge girls was compared with the change for the Donner girls, there was a significant difference in the directions taken by the girls in each center; the change for Donner girls was in the masculine direction while the change for Kittredge girls was in the feminine direction.

Biller Rating Scale

The Biller Rating Scale provides a measure of the degree to which an individual, as perceived by members of his society, has adopted a masculine sex-role. The scale contains 16 items, 9 of which reflect high masculinity characteristics and 7 of which are low in masculinity. A range of scores from 0 to 48 is possible, with the higher scores representing greater masculinity. Ratings were obtained for the children in each center at two different times (viz., September and May) during the project year. At each of the four centers the children were rated by their regular female teachers, while at Kittredge and Donner ratings were also provided by the male caregivers. Thus, two scores were available for each child in the experimental schools. To minimize error, each item on the scale was accompanied by a concrete exemplary description, and the teachers were briefed prior to rating their children.

Before the data were analyzed, two _t_-tests were performed to determine whether differences existed between the ratings of male and female caregivers in the experimental schools. No difference was found at Kittredge; however, at Donner male teachers rated children as less masculine (M = 42.18, SD = 6.30) than did their female counterparts (M = 44.90, SD = 8.06). As a result, only the ratings of the female teachers in each center were used in the overall analysis.

Two analyses of variance were performed, first on the initial scores and then on the change scores between the initial and final ratings. Each ANOVA contained the following variables of interest: (1) center (Kittredge, Harobi, Donner, Trinity); (2) child's sex (male, female); (3) age of child (four-year-olds: 54 months and younger; five-year-olds: 55 months and older).

Initial test results. Analysis of the initial scores revealed an interaction between center and sex ($\underline{F} = 6.186$, $\underline{df} = 3,132$, $\underline{p} < .001$). This interaction was primarily attributable to the fact that Donner girls were rated as being substantially more masculine (M = 44.90, SD = 7.90) than girls in the other three centers. In particular, their scores were significantly more masculine than those of the girls at Kittredge (M = 34.70, SD = 10.73) ($\underline{t} = 3.36$, $\underline{df} = 37$, $\underline{p} < .002$) and Trinity (M = 34.91, SD = 9.53) ($\underline{t} = 3.09$, $\underline{df} = 28$, $\underline{p} < .004$). As a result, the average score at Donner (M = 44.90, SD = 8.06) for both sexes combined was significantly more masculine than the same score at Trinity (M = 38.92, SD = 10.55) ($\underline{t} = 2.56$, $\underline{df} = 62$, $\underline{p} < .02$). Even though the ratings of the girls at Donner were exceptionally masculine, a significant overall effect of sex was observed ($\underline{F} = 24.753$, $\underline{df} = 1,136$, $\underline{p} < .001$). As was expected, males were rated more masculine (M = 45.05, SD = 9.81) than females (M = 37.74, SD = 11.08).

For the purposes of determining the effects of father absence on sex-role adoption, the ratings provided by the female teachers in each center were compared according to father presence or father absence for each sex. None of these comparisons was found to be significant.

Sex-of-rater differences. As reported earlier, the ratings of male and female teachers differed in at least one of the experimental schools, Donner. At that center, the female teachers rated children as being more masculine than did the male teachers. To further investigate this effect, the initial ratings provided by male and female teachers for the male and female children in each center were compared. At Kittredge, male children were rated more masculine by female teachers ($M = 47.81$, $SD = 10.27$) than by male teachers ($M = 40.43$, $SD = 9.01$) ($\underline{t} = -4.14$, $\underline{df} = 20$, $\underline{p} < .001$). On the other hand, female teachers at Donner rated female children more masculine than did the male teachers. Neither the females at Kittredge nor the males at Donner were rated differently by the male and female teachers.

To provide overall estimates of the interrater reliabilities within each center, Pearson $\underline{r}$ correlation coefficients were calculated for the male and female ratings. The values obtained were .64 ($\underline{p} < .001$) and .55 ($\underline{p} < .001$) for Kittredge and Donner, respectively.

Change scores. Analysis of the change scores revealed no significant effects.

Summary. The initial test scores indicate an interaction between center and sex that primarily is the result of unusually masculine ratings for the girls at Donner. When combined together, both sexes at Donner were rated as more masculine than the children at Trinity. The average score of boys from the four centers combined was more masculine than that of the girls.

Comparisons of the ratings provided by the male and female teachers in the experimental schools revealed that the female teachers at Kittredge rated boys more masculine than did the male teachers, while female teachers at Donner rated girls more masculine than did male teachers.

Analysis of the change scores yielded no significant effects.

Comfortable Interpersonal Distance Scale

The CID (Duke & Nowicki, 1972) provides estimates of a subject's preferred interpersonal distance from a variety of different "stimulus people." The particular version of the test used in this project contained modifications to simplify its use with young children. To administer the test, each child was first seated before a drawing of the CID scale (see Appendix O) and "introduced" to a small (approximately 1-1.5 inches) self figure that matched the child's sex and race.[28] The self figure was then positioned at the center of the scale. The experimenter described the figure as standing in the middle of a round room, facing a door through which various people and animals would enter and approach. The child's task was to say "stop" or point with a finger when he or she did not want each test figure to approach any nearer. When the child so responded, the experimenter stopped moving the figure, recorded the distance as the CID score, and introduced the next test figure. The maximum distance from the door to the center of the room was 15 centimeters.

Two figures representing a dog and an insect were presented first as practice items. Following these items, a series of figures was tested whose order of presentation was counterbalanced between subjects. In the experimental schools, this series contained father, mother, brother, and sister figures, male and female teacher figures (appropriate identifying names were used), and four male and female, black and white, peer figures (no identifying names were used). The male teacher figure was omitted at the two control schools. All of the test figures approached the self figure from the same door.

The CID was administered twice during the second project year; initial measurements were taken in September, followed by a final set of measurements in May. Thus, initial scores and change scores were available for each figure.

For analysis, the stimuli were divided into two specific groups. At Kittredge and Donner, scores for the father, mother, male teacher, and female teacher items were grouped together as concrete items that represented real people. These four items were then partitioned by sex and the presence or absence of a familial relationship. The second group contained the four nonspecific peer figures and was partitioned on the basis of sex and race. Scores for the second group of figures were available from all four of the centers.

For each group of figures, two analyses of variance were performed using the initial and change scores. Because the compatibility of the ANOVA program and this particular design was limited, each group of four, within-subjects scores was treated as if it were obtained between-subjects. Although the degrees of freedom of the error estimates were considerably inflated by this technique, it was hoped that the resultant ANOVAS would at least be helpful in suggesting directions for a more detailed inspection of the data. For the group of concrete figures, the six factors of analysis were: (1) center (Kittredge, Donner); (2) sex of child (male, female); (3) age of child (four-year-olds: 54 months and younger; five-year-olds: 55 months and older); (4) status of father (present, absent); (5) familial relationship (yes, no); and (6) sex of figure (male, female).

Initial scores. A main effect of familial relationship was obtained from the analysis of variance ($F = 4.954$, $df = 1, 247$, $p < .05$). Since no sex-of-figure effect was observed, scores were collapsed across this variable before inspecting the effect of familial relationship further. Subsequently, it was found that children stopped the figures that had no familial relationship with the self figure at a more distant point ($M = 4.82$, $SD = 4.09$) than those figures that shared this relationship ($M = 3.63$, $SD = 4.04$) ($t = -3.19$, $df = 63$, $p < .002$). An interaction between a child's sex and the status of his or her father was also indicated ($F = 23.457$, $df = 1{,}234$, $p < .001$). By collapsing across the familial relationship and sex of figure variables, an average distance score was obtained for each child. These scores are plotted in Figure 2 . Girls whose fathers were absent from home had higher average distance scores ($M = 6.69$, $SD = 3.79$) than boys under the same conditions ($M = 2.26$, $SD = 3.06$) ($t = -2.73$, $df = 16$, $p < .02$). These girls also scored significantly higher than the girls whose fathers were present ($M = 3.04$, $SD = 3.45$) ($t = 2.54$, $df = 26$, $p < .02$). No difference was found to exist between father-present and father-absent boys, nor were there any differences between the two centers.

Change scores. A significant interaction between sex and father status was suggested by the analysis of variance ($F = 18.536$, $df = 1{,}230$, $p < .001$). Since none of the analysis of variance components that involved familial relationship or sex-of-figure were significant, scores were again collapsed across these variables to produce an average change score. These scores are plotted in Figure 3 . The average comfortable interpersonal distance scores of girls with fathers absent diminished

Figure 2

Mean Initial Scores on CID Concrete Figures as a Function of Father Status

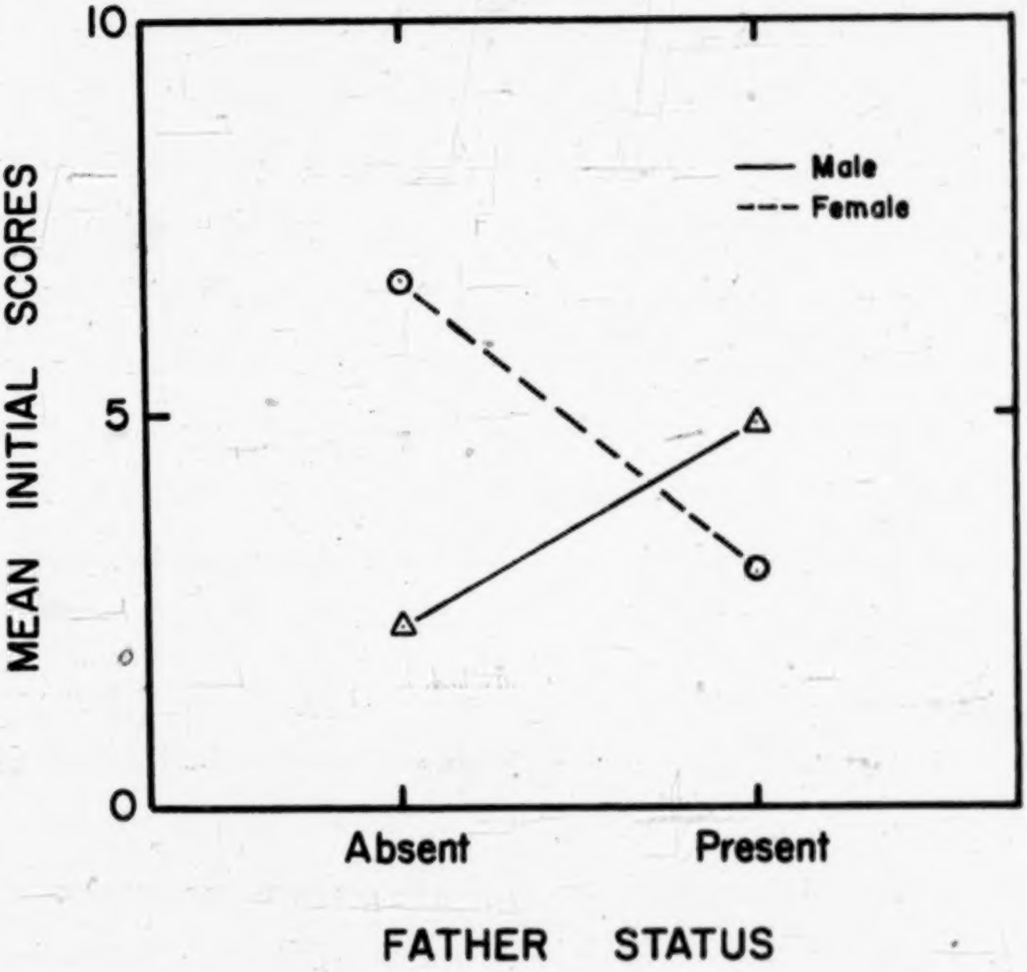
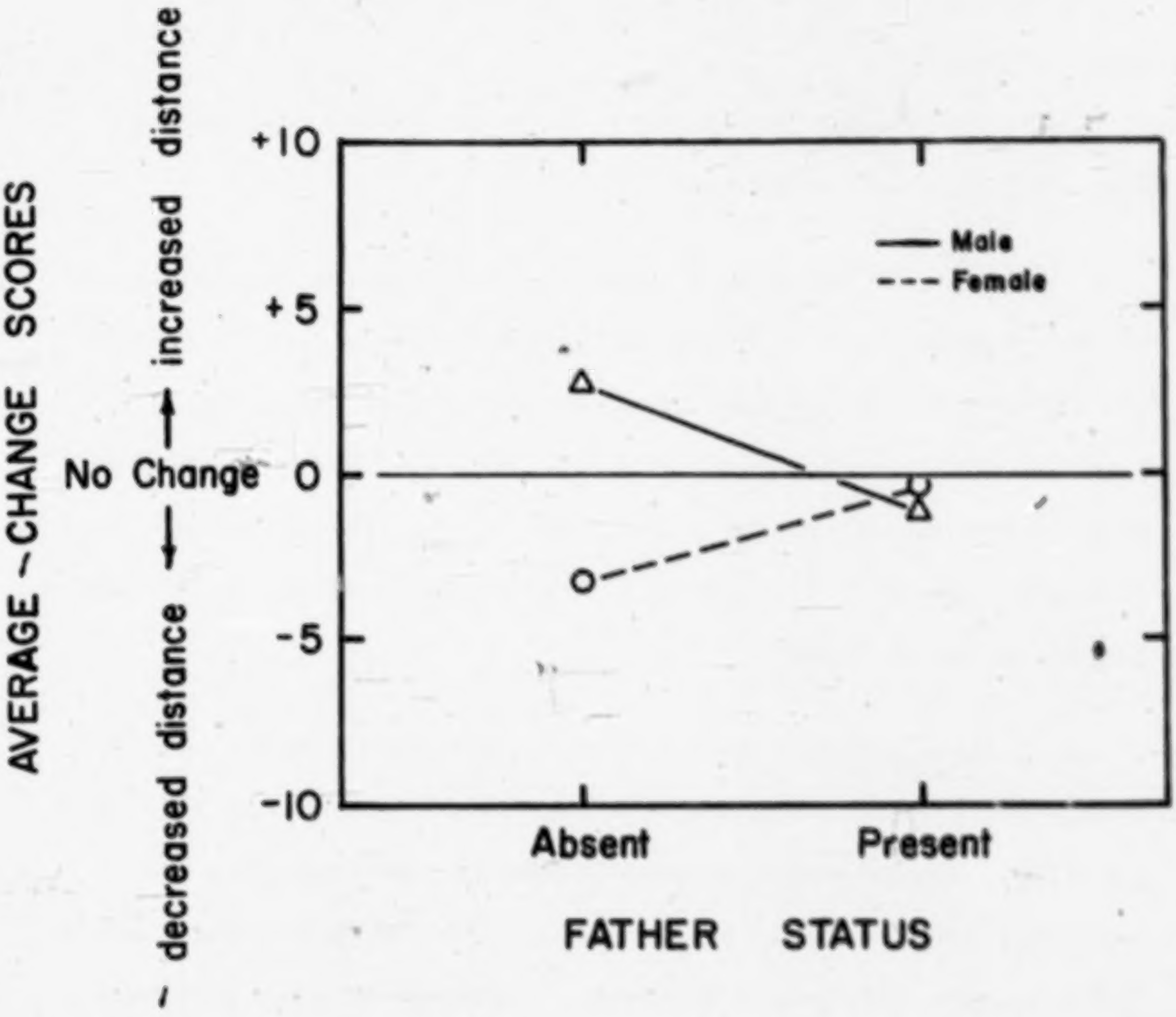


Figure 3

Mean Change Scores on CID Concrete Figures as a Function of Father Status



across time (*M* = -3.17, *SD* = 2.01) while the scores of boys under the same conditions increased (*M* = 2.75, *SD* = 5.62) (*t* = 2.96, *df* = 15, $p < .01$). The reduction in the scores of father-absent girls was also significantly greater than that of father-present girls (*M* = -0.26, *SD* = 3.51) (*t* = -2.30, *df* = 26, $p < .03$).

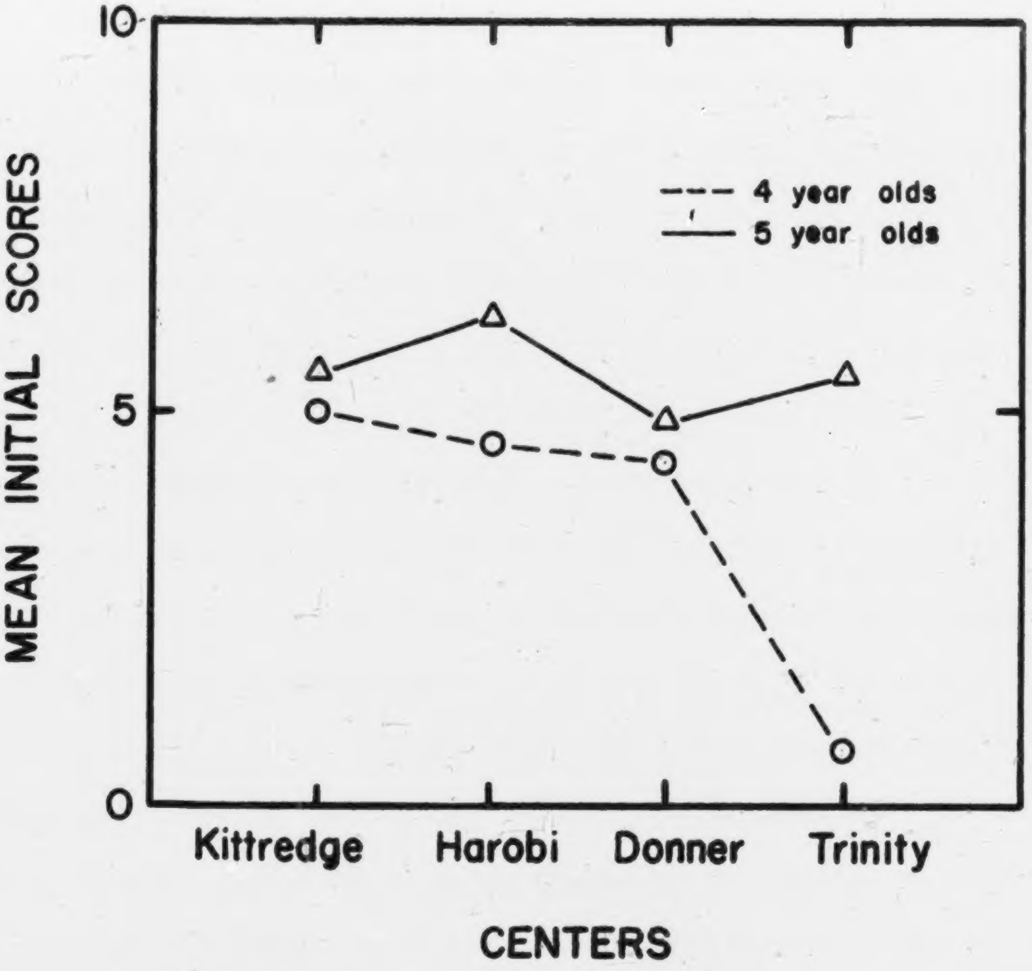
No significant difference in change scores was observed between Kittredge and Donner.

Scores for the four nonspecific peer figures were analyzed in much the same way with the following six factors: (1) center (Kittredge, Harobi, Donner, Trinity); (2) sex of child (male, female); (3) age of child (four-year-olds: 54 months and younger; five-year-olds: 55 months and older); (4) status of father (present, absent); (5) race of figure (black, white); and (6) sex of figure (male, female).

Initial scores. Analysis of variance indicated a significant interaction bewteen center and age (*F* = 7.614, *df* = 3,458, $p < .001$). Scores were collapsed across the sex-of-figure and race-of-figure variables since neither of these main effects nor their interactions were significant. Further analysis indicated that four-year-olds at Trinity were primarily responsible for this interaction (see Figure 4 .) The average CID scores of this group of children were significantly lower (*M* = 0.68,

Figure 4

Mean Initial Scores on CID Nonspecific Peer Figures as a Function of Center



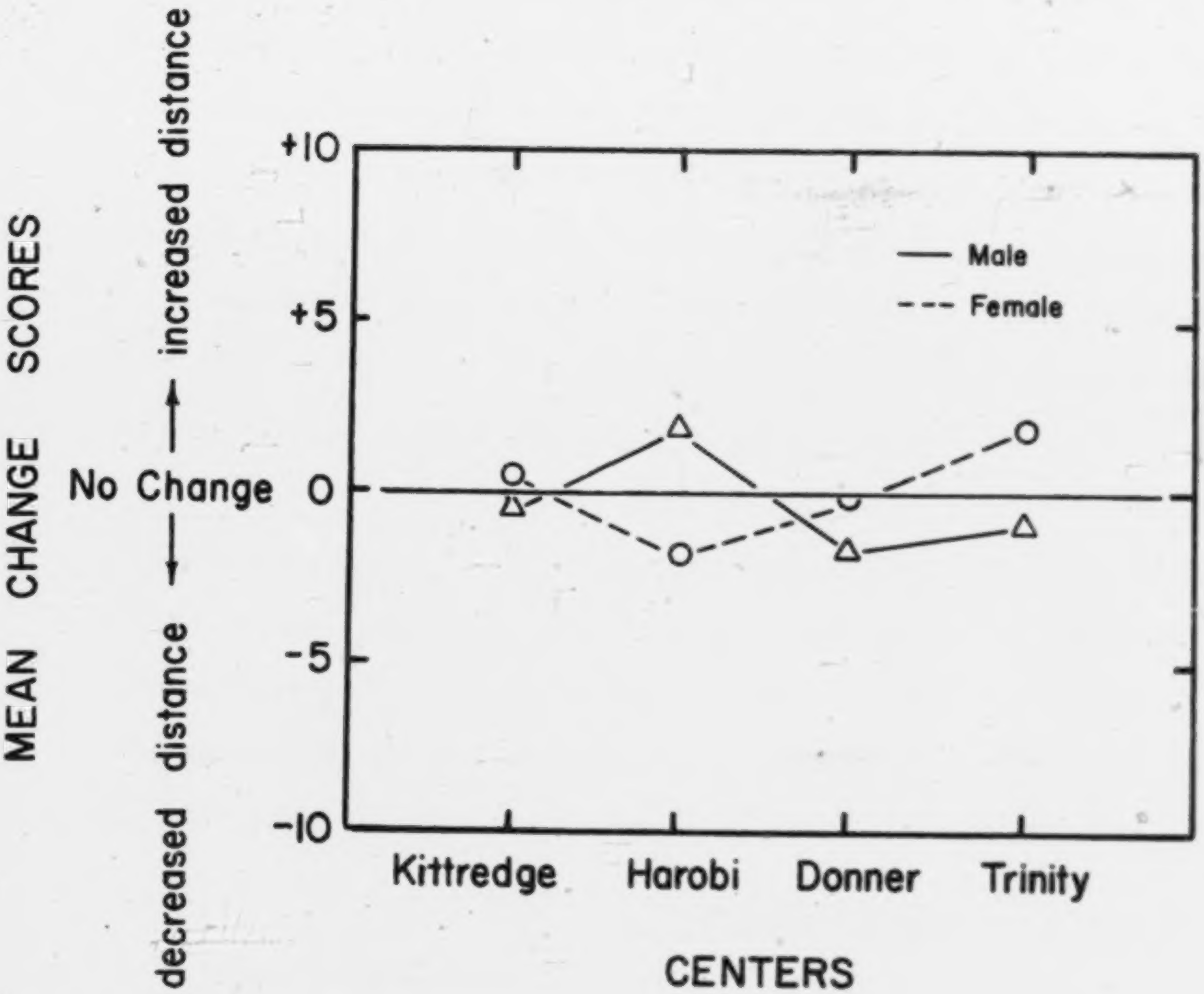
SD = 1.80) than the average scores of five-year-olds in the same center (M = 5.48, SD = 4.23) (t = -2.86, df = 20, $p < .01$), as well as four-year-olds at Donner (M = 4.43, SD = 3.92) (t = 2.39, df = 19, $p < .03$). There were no differences between the high SEL schools, Kittredge and Harobi.

Change scores. In the absence of effects involving either the sex or race of the peer figures, scores were again collapsed across these variables for further analysis. A significant interaction was observed between center and sex (F = 9.252, df = 3,442, $p < .001$). The change scores of the boys at Harobi indicated an increase in comfortable interpersonal distance (M = 1.91, SD = 4.50), while there was a slight decrease for the boys at Kittredge (M = -0.49, SD = 3.55) (t = -1.87, df = 38, $p < .07$). These results are shown in Figure 5 . Although the CID scores of Harobi boys increased, those of the Harobi girls were observed to decrease (M = -1.81, SD = 6.19) (t = 2.06, df = 33, $p < .05$). No differences were observed between the Donner and Trinity samples.

An interaction between center and age was also suggested by the results of the analysis (F = 4.281, df = 3,442, $p < .01$). Scores at Kittredge, Donner, and Harobi were similar while the scores of four-year-olds at Trinity were higher. The average change score of the Trinity four-year-olds was positive, indicating increased interpersonal distance (M = 3.85, SD = 4.56),

Figure 5

Mean Change Scores on CID Peer Figures
as a Function of Center



while that of the Trinity five-year-olds was negative, indicating decreased interpersonal distance (M = -1.28, SD = 4.99) ($\underline{t}$ = -2.16, $\underline{df}$ = 18, $\underline{p} < .05$). No other differences were significant.

Summary. Test figures that shared a familial relationship with the self figure were allowed to approach closer than those that did not share this relationship. Girls whose fathers were absent had larger initial CID scores than both girls whose fathers were present and boys whose fathers were absent. With respect to the change scores, father-absent girls were found to undergo a significant reduction in their average CID scores between the initial and final tests.

For four-year-olds at Trinity, the average initial scores of the four peer figures were lower than either the five-year-olds at that center, or the four-year-olds at Donner. Across time, the CID scores of Harobi boys increased while those at Kittredge were stable. While the CID scores of four-year-olds at Kittredge, Harobi, and Donner remained stable, the scores of four-year-olds at Trinity were observed to increase significantly.

Preschool Embedded Figures Test

The PEFT is a test of perceptual disembedding that is designed to measure "the extent of ability to overcome an embedding context." The observed stylistic tendencies in perception are discussed in terms of the concept of field dependence-independence. On a broader level, however, the effect of these stylistic tendencies on the intellectual domain is considered: The emergent concept is that of cognitive styles, more specifically, "global vs. analytical dimension of cognitive functioning."

The PEFT was administered to all the children in the study in the beginning of the second year of the Demonstration Project, in September (initial test), and at the end of the project year, in May (final test). Two three-way ANOVAS were performed: one on the initial test scores of the children, and the second one on the change scores from the initial to the final test time. The three factors under investigation were: (1) center (Kittredge, Harobi, Donner, Trinity); (2) sex of the child (male, female); and (3) age of the child (four-year-olds: 54 months and younger; five-year-olds: 55 months and older).

Initial test results. There were two significant main effects: age ($\underline{F} = 8.714$, $\underline{df} = 1,98$, $\underline{p} < .01$) and center ($\underline{F} = 3.642$, $\underline{df} = 3,98$, $\underline{p} < .05$). Age main effect was due to the fact that the five-year-old children (M = 16.94, SD = 3.53) scored higher than the four-year-olds (M = 15.21, SD = 4.25). Center main effect reflected a possible SEL-related difference in performance: The children from the two upper-middle SEL schools, Kittredge (M = 16.66, SD = 4.19) and Harobi (M = 17.13, SD = 3.66) obtained higher scores on this test than the children from the two lower SEL schools, Donner (M = 15.84, SD = 2.66) and Trinity (M = 14.65, SD = 4.82) (t = 2.09, df = 105, $p < .04$). The average scores of the two schools, experimental and control, within each SEL group did not differ significantly from each other.

The only significant interaction obtained on the initial test results was a center-by-age interaction (F = 3.742, df = 3, 94, $p < .05$). For the five-year-olds there were no differences between the experimental versus the control subjects within either SEL group. This was also true of the four-year-old subjects within the upper-middle SEL group. However, within the lower SEL group, the four-year-old experimental subjects (Donner: M = 16.10, SD = 2.56) scored higher than their controls (Trinity: M = 11.14, SD = 5.24) (t = 2.60, df = 15, $p < .02$).

Change scores. The mean change main effect was significant (F = 42.22, df = 1,95, $p < .001$); there was an overall increase toward greater field-independence among the subjects.

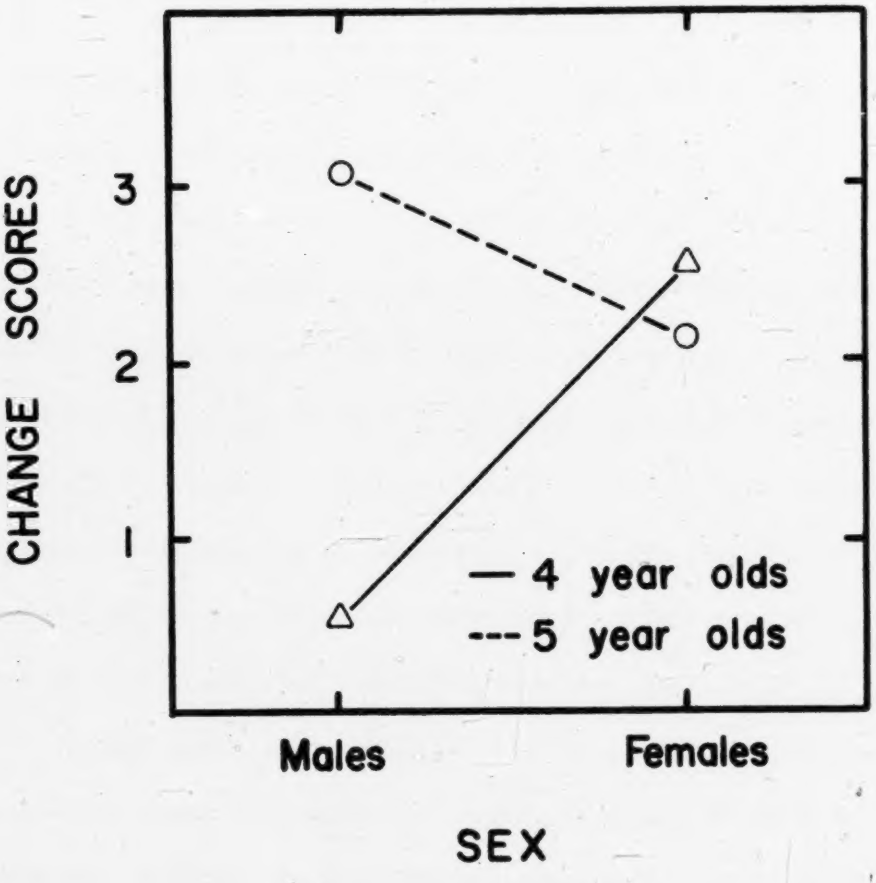
The main effects of center (F = 5.168, df = 3,94, $p < .01$) and age (F = 4.649, df = 1,94, $p < .01$) were also significant. An SEL difference contributed to the center main effect: The children from the upper-middle SEL centers, experimental (Kittredge: M = 2.97, SD = 2.60) and control (Harobi: M = 3.12, SD = 2.76), showed greater improvement on their PEFT scores than the children from the two lower SEL centers (Donner: M = 0.83, SD = 3.36; Trinity: M = 1.53, SD = 3.22) (t = 3.21, df = 99, $p < .002$). The experimental schools (combined) did not differ significantly from the control schools (combined) in terms of the amount of increase in PEFT scores. Neither was there any significant difference between the experimental and control groups within each SEL level. The significant main effect of age was due to the greater increase in the PEFT scores of the five-year-olds (M = 2.68, SD = 2.67) as compared to the four-year-olds (M = 1.60, SD = 3.49).

The only significant interaction was the sex-by-age interaction (F = 8.805, df = 1,88, $p < .01$). As can be observed in Figure 6 , the change scores of the five-year-old boys and girls did not differ significantly. However, there was a difference between the four-year-old boys' and girls' change scores (t = -1.91, df = 40, $p < .06$). The four-year-old girls showed a greater increase on the PEFT scores (M = 2.55, SD = 3.32) than the four-year-old boys (M = 0.55, SD = 3.44). Also, the five-year-old boys (M = 3.09, SD = 2.72) showed a significantly greater increase in the PEFT scores than the four-year-old boys (t = -3.00, df = 52, $p < .004$). No such difference was observed between the change scores of the four- and five-year-old girls.

Looking at the effect of father absence separately, it was found that there was no difference between the performance of the father-present and -absent children on the initial test at any of the centers. However, different results were obtained at the final test time. Father-absent children at Kittredge

Figure 6

PEFT Change Scores:
Sex by Age



Note: Higher scores indicate change towards increased field-independence.

(M = 5.00, SD = 2.45) and Donner (M = 2.86, SD = 3.24) were found to have made significant gains toward field-independence as compared to father-present children in these schools (Kittredge: M = 2.59, SD = 2.49; Donner: M = 0.00, SD = 3.12) (Kittredge: $\underline{t} = -1.99$, $\underline{df} = 30$, $\underline{p} < .06$; Donner: $\underline{t} = -2.02$, $\underline{df} = 22$, $\underline{p} < .06$). The father-present and father-absent children at the control schools, however, were not different in terms of the change scores on this test.

Summary. On the initial test, center and age were found to be significant variables. The children from the upper-middle SEL schools performed better than those children attending lower SEL schools. Older children (five-year-olds) obtained higher scores than the younger children (four-year-olds). There was an interaction of center-by-age. For the five-year-olds within either SEL group and the four-year-olds within the upper-middle SEL group, there were no differences between the experimental vs. the control subjects. Within the lower SEL group, however, the four-year-old experimental (Donner) subjects scored higher than their controls (Trinity).

When the change scores at the end of the project year were analyzed, it was found that center and age main effects were significant. Children attending the upper-middle SEL schools improved their performance on the PEFT more than those children who were attending the lower SEL schools. The only difference between the experimental and control schools was in relation to the variable of father status: In comparison to the performance of the father-present children, the performance of the father-absent children appeared to have been facilitated at the experimental schools while no such facilitation was observed for the control schools.

The main effect of age reflected the greater increase in the PEFT scores of the five-year-olds as compared to the four-year-olds. There was a sex-by-age interaction: The four-year-old boys were found to lag behind in terms of PEFT performance as compared to the five-year-old boys and also the four-year-old girls.

"Interpersonal Perception Test"

The "Interpersonal Perception Test" consists of a series of short story items that are intended to tap the subject's ability to respond empathically to other people. As such, it represents a measure of social sensitivity or attunement, and can be regarded as an indicator of interpersonal development.

The IPT was administered twice during the second year of the Demonstration Project. Each subject was tested in September at the beginning of the second year (initial test) and again in May (final test).

The test items are short stories that depict either "happy," "sad," "afraid," or "angry" emotional situations. Four drawings of faces that reflect each of these emotions are placed in front of the subject and his task is to complete another drawing by selecting that face which best fits the emotional tone of the story. The test also contains some "ambiguous" stories that are valuable in certain cultural studies. However, these items were not of primary interest, and were, therefore, excluded from the present analysis. A total score was calculated for each subject based on the total number of "happy," "sad," "afraid," and "angry" stories in which the correct face was selected (a perfect score of 16 was possible). Two analyses of variance were performed, each having three factors. The first analysis dealt with the children's total scores at the initial test, and the second analysis was concerned with the change, or difference scores between the initial and final test. The three factors that were of interest in both ANOVAS were: (1) center (Kittredge, Harobi, Donner, Trinity): (2) sex of child (male, female), and (3) age of child (four-year-olds: 54 months and younger; five-year-olds: 55 months and older).

Initial test results. Significant main effects of center ($\underline{F}$ = 24.784, $\underline{df}$ = 3,102, $\underline{p} < .001$) and age ($\underline{F}$ = 9.605, $\underline{df}$ = 1,102, $\underline{p} < .01$) were found in the analysis. There was a clear difference across SEL in the ability to identify the emotional responses of other people. When combined together, the Kittredge-Harobi children responded correctly to considerably more of the test items

(M = 11.18, SD = 2.99) than did the Donner-Trinity children (M = 6.50, SD = 2.73) (t = 8.20, df = 106, $p < .001$). The average scores of the experimental and control schools within each level of SEL did not differ significantly from each other.

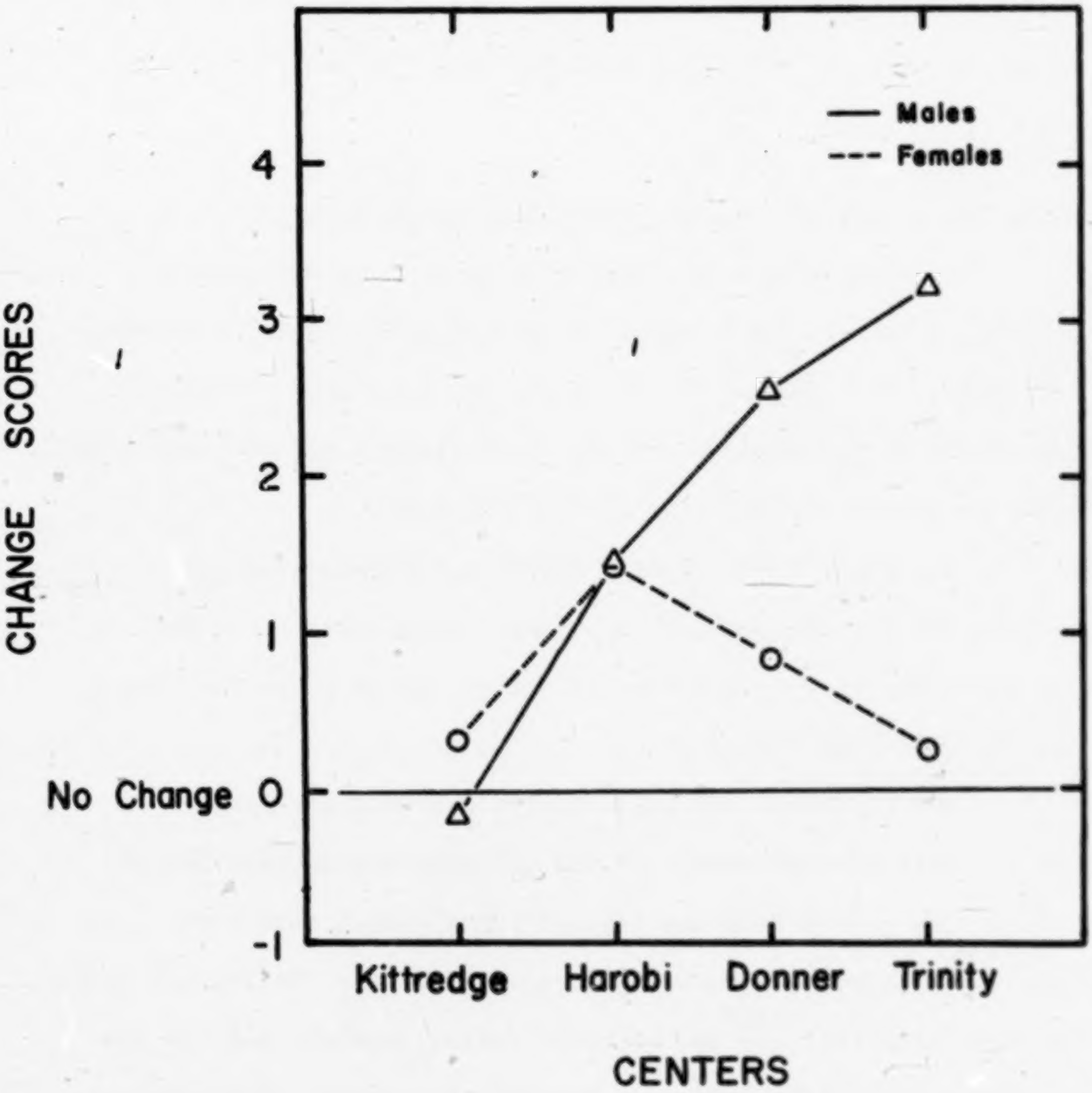
When scores of children from the four centers were combined together and then grouped according to age, five-year-olds performed significantly better (M = 9.90, SD = 3.76) than four-year-olds (M = 8.45, SD = 3.39) (t = -2.00, df = 106, $p < .05$). Thus, the older children were able to base their responses on appropriate feelings of empathy more frequently than were young children.

Change scores. The performance of all children gained an average of 1.10 points during the period between the initial and final tests (F = 14.664, df = 1,101, $p < .001$). As can be observed in Figure 7 , the two sexes contributed differently to the change scores at Trinity (M = 1.82, SD = 3.34). Boys at that center showed a substantial gain (M = 3.22, SD = 1.99), while girls did not (M = 0.25, SD = 3.96) (t = 1.99, df = 15, $p < .07$). At Harobi (M = 1.46, SD = 2.67) and Donner (M = 1.65, SD = 3.28) boys and girls improved equally, while at Kittredge (M = 0.06, SD = 2.35) neither sex showed improvement.

Summary. To summarize the results of the initial test, children from the upper-middle SEL performed better than those from the lower SEL schools. In addition, older children (five-

Figure 7

Change Scores in the "Interpersonal Perception Test": Center by Sex



year-olds) obtained higher scores on the test than did younger children (four-year-olds).

Performances of children in all of the centers except Kittredge improved significantly between the initial and final tests. While boys and girls at Harobi and Donner shared these gains equally, at Trinity improvement was limited to only the male children.

Children's Picture Test of Internal External Control

Children's Picture Test of Internal External Control (Battle & Rotter, 1963) was used to assess the locus of control dimension. The scores on this test can range from 0 (extreme internal) to 36 (extreme external), increasing scores indicating greater degrees of external locus of control.

This test of locus of control was administered twice during the second demonstration year. Each subject was tested in September at the beginning of the second year (initial test) and again in May (final test).

Two three-way analyses of variance were performed: One on the initial test scores of the children and another one on the change scores from the initial to the final test time. The variables under consideration were: (1) center (Kittredge, Harobi, Donner, Trinity), (2) sex of child (male, female), and (3) age of child (four-year-olds: 54 months and younger; five-year-olds: 55 months and older).

Initial test results. None of the main effects or the interactions was found to be significant.

Change scores. In addition to the overall mean change ($F = 17.61$, $df = 1,96$, $p < .001$), there were two significant main effects: center ($F = 3.148$, $df = 3,95$, $p < .05$), and age ($F = 5.463$, $df = 1,95$, $p < .05$).

Children from all centers with the exception of Kittredge scored lower (i.e., were more internally controlled) at the final test time. The Kittredge children (M = 0.23, SD = 4.40) were significantly different in terms of their average change scores from their controls, the Harobi children (M = -2.14, SD = 3.58). They were also significantly different from the Donner children (M = -2.04, SD = 3.12).

The four-year-old children (M = -2.16, SD = 3.34) demonstrated a higher increase toward internal control than did the five-year-olds (M = -0.63, SD = 3.91) ($t = -2.02$, $df = 99$, $p < .05$).

There were no significant interactions.

Summary. Children in all of the centers, except Kittredge, increased in the level of internal control which they displayed. In addition, the gains in internal control shown by four-year-olds were considerably larger than those of five-year-olds.

Peabody Picture Vocabulary Test

The Peabody Picture Vocabulary Test was administered to each of the subjects in order to obtain a measure of intelligence. An IQ score for each child was obtained at the beginning of the second project year (the initial score), and another score using a different form of the same test was obtained at the end of the second year (the final score). Two four-way ANOVAS were performed: One on the initial test scores of the children, and the second one on the change scores from the initial to the final test time. The four variables under investigation were: (1) center (Kittredge, Harobi, Donner, Trinity); (2) sex of child (male, female); (3) age of child (four-year-olds: 54 months and younger; five-year-olds: 55 months and older); and (4) father status (present, absent).

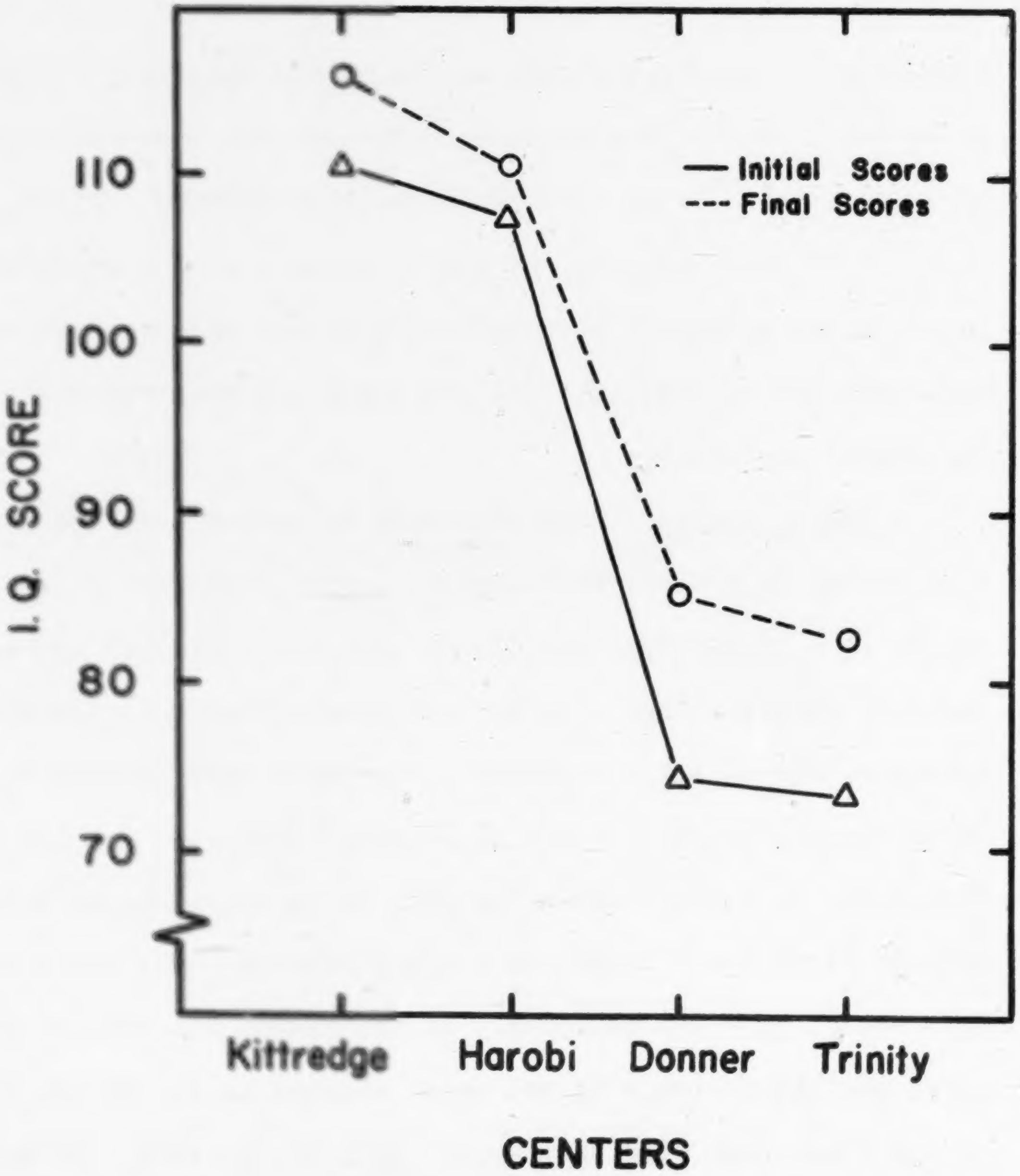
Initial test results. The only significant main effect was that of center ($F = 25.52$, $df = 3,113$, $p < .01$). There were no differences between Kittredge and Harobi or between Donner and Trinity. However, there was an SEL difference between the centers: When the children at Kittredge were compared with the children at Donner, the mean IQ at Kittredge ($M = 108.00$, $SD = 11.78$) was significantly higher than the mean IQ at Donner ($M = 74.08$, $SD = 21.64$) ($t = 6.73$, $df = 25$, $p < .001$). Likewise, there was a difference between the two control centers: The mean IQ of the Harobi children ($M = 112.52$, $SD = 17.60$) was significantly higher than the mean IQ of the children at Trinity (M = 71.24, SD = 17.83) (t = 8.47, df = 24, $p < .001$).

The one significant interaction among the initial scores was the interaction of age and sex (F = 4.972, df = 1,98, $p < .05$). Although there was no difference between the IQ scores of the four-year-old boys and the IQ scores of the five-year-old boys, there was a significant difference between the four-year-old (M = 98.45, SD = 21.48) and five-year-old girls (M = 85.48, SD = 23.56) (t = 2.15, df = 54, $p < .04$). There was no difference between the IQ scores of boys and girls either when the age groups were combined or when the four-year-olds and five-year-olds were considered separately.

Change scores. When the final IQ scores were compared to the initial IQ scores, the overall change in the means was significant (F = 19.307, df = 1,115, $p < .01$). With regard to the individual centers, there was no significant change in the mean IQ scores of the children at Harobi, but there were changes at the other three centers. As can be observed in Figure 8 , the greatest change was at Donner, where the mean IQ score increased from an initial 74.08 (SD = 21.64) to a final mean of 85.15 (SD = 18.67) (t = -3.37, df = 25, $p < .002$). At Kittredge, the initial mean IQ score was 110.63 (SD = 14.56) which changed to 115.95 (SD = 13.91) at the final test time (t = -2.36, df = 39, $p < .02$). At Trinity the IQ scores increased from an initial mean of 73.17 (SD = 18.31)

Figure 8

Change in the PPVT Scores for Each Center



to a final mean of 82.67 (SD = 14.17) ($t = -2.26$, $df = 23$, $p < .03$). There were no differences in the changes between centers. There was, however, some evidence that the IQ scores of the five-year-old children increased more than the scores for the four-year-old children. The mean increase for the four-year-olds was 4.29 (SD = 8.85) and the mean increase for the five-year-olds was 15.20 (SD = 15.46) ($t = -1.73$, $df = 20$, $p < .10$).

Summary. The significant findings on the initial PPVT scores were the following: There was a difference in IQ scores between centers, with Kittredge scores being higher than the Donner scores and the Harobi scores being higher than the Trinity scores. There was a significant age and sex interaction, with four-year-old girls having higher IQ scores than five-year-old girls. The overall change in the mean IQ scores from the initial to the final test was a significant increase. The greatest increase in scores was at Donner, with Kittredge and Trinity also showing increases.

Observation Results

Interaction Check List

An experimental instrument, Interaction Check List, was constructed to study the teacher-child behaviors in interaction. The teacher behaviors of interest were mainly those having to do with methods of reinforcement and control. Of additional interest were the unconditional expressions of affection. Three major categories of child behaviors were studied: (1) instrumental attention bids; (2) emotional attention bids: positive reassurance seeking; and (3) emotional attention bids: negative attention seeking (see Appendix P for a copy of the ICL.)

At the Kittredge Springs and Donner Centers, each male teacher and the female teacher with whom he worked were observed regularly during a period which lasted approximately about two months, roughly between the months of February and April of each demonstration year. The observation periods were about 15 seconds in duration.[29] All teacher behaviors and child behaviors displayed during this interaction period were recorded.

Fourteen teachers, seven males and seven females, were observed during the first demonstration year. During the second demonstration year, eight male teachers and seven female teachers were observed.

Thirty-five observations were made on each teacher, totaling about 525 observations for each demonstration year. No more than five observations were made on any one teacher during a given day. The teachers were observed according to a predetermined counterbalanced order. Observations were made during small group activity or free play periods. The collection of teacher-child interaction data based on a time sampling technique proved to be quite unfeasible during free play due to the relative infrequency of teacher (particularly female) participation in the free play activities of the children, especially out-of-doors. Furthermore, both centers effectively reduced indoor free play periods during the first year of the project by structuring these periods to enhance considered-choice-making behaviors among the children. Therefore, most of the observations were made during small group instructional activities directed by a teacher.

There were two observers, one male and one female, during each demonstration year. The inter-observer reliabilities are given below:

	Demonstration Year	
	First	Second
Teacher behaviors at Donner:	.83	.83
Child behaviors at Donner:	.86	.86
Teacher behaviors at Kittredge:	.83	.87
Child behaviors at Kittredge:	.88	.86

The observers remained in the background and yet within hearing distance of the group. Observer interaction with children was avoided as much as possible.

Teacher behaviors. To test for the sex differences in teaching styles, tests were computed on the differences in proportion of time that each sex spent on each of the teacher behaviors. The data were analyzed separately for the first and second demonstration years. The Donner and Kittredge teachers were grouped together for purposes of analysis along the sex dimension.

Very few differences were observed between the male and female teachers in terms of teacher behaviors. Both sexes were very much alike with respect to the proportion of time they engaged in the three major categories of teacher behaviors: During the first demonstration year approximately 75-85 percent of all teacher behaviors were reinforcing behaviors, attempts at maintaining the ongoing behavior of the child. Roughly about 15-20 percent of all teacher behaviors were attempts at stopping the ongoing behavior of the child. Only about 2 percent of all behaviors were unconditional affectionate behaviors. The male and female teachers were found to be significantly different with respect to three behavior subcategories: direct verbal praise ($\underline{t} = 4.490$, $\underline{df} = 14$, $\underline{p} < .001$), public praise ($\underline{t} = 2.245$, $\underline{df} = 14$, $\underline{p} < .05$), and ignoring ($\underline{t} = 3.164$, $\underline{df} = 14$, $\underline{p} < .01$). As can be observed in Table 11, the female teachers praised (direct verbal and public praise) the children more and ignored them less than the male teachers did. The females, as compared to the males, gave public praise more often to both boys and girls (see Table 12); however, they directly praised the girls more often than the male teachers did. The male and female teachers significantly differed with respect to the frequency of ignoring behaviors in interaction with boys, with the male teachers ignoring the boys more often than the female teachers did. In fact, the male teachers, again in comparison to the female teachers, displayed a higher frequency of overall attempts at stopping the ongoing behavior of boys.

In terms of direct reinforcement behaviors (subcategories A2-A6 combined), the female teachers ($M = 0.15$, $SD = 0.04$) displayed a higher frequency of such behaviors than did the male teachers ($M = 0.08$, $SD = 0.03$) ($\underline{t} = 2.98$, $\underline{df} = 12$, $\underline{p} < .02$).

During the second demonstration year,[30] there were no differences between the male and female teacher behaviors on the Interaction Check List.

Child behaviors in interaction with male and female teachers. During the first demonstration year, children were found to differentiate between male and female teachers in terms of three child behavior categories: (1) attending and cooperating (in response to a direct bid from the teacher)

Table 11

ICL: First Demonstration Year

Summary of _t_-tests of significant proportion differences between male and female teacher behaviors

Teacher behavior category	Female Teacher (N = 7)		Male Teacher (N = 7)				
	M	SD	M	SD	_t_	_df_	_p_
Direct verbal praise	.067	.021	.023	.015	4.490	12	.001
Public praise	.021	.017	.001	.008	2.245	12	.05
Ignore	.039	.027	.101	.045	3.164	12	.01

Table 12

ICL: First Demonstration Year

Summary of *t*-tests of proportion differences
between male and female teacher behaviors
in interaction with male and female children

Teacher behavior category	Female Teacher (N = 7)		Male Teacher (N = 6)				
	M	SD	M	SD	*t*	*df*	*p*
Boys							
Direct verbal praise	.07	.04	.03	.02	2.666	12	.01
Public praise	.02	.02	.004	.008	1.975	12	.10
Ignore	.03	.02	.06	.04	2.197	12	.05
Attempts at stopping ongoing behavior	.11	.12	.22	.08	-2.150	12	.10
Girls							
Public praise	.02	.02	0.0	0.0	2.434	11	.03
Request not to do (reasons given)	.02	.02	0.0	0.0	3.261	11	.01

($\underline{t}$ = 3.897, $\underline{df}$ = 12, $\underline{p} < .002$); (2) continuing with an ongoing constructive behavior without any interaction with the teacher ($\underline{t}$ = 3.844, $\underline{df}$ = 12, $\underline{p} < .002$); and (3) touching, holding, or clasping in physical, non-aggressive attention bids ($\underline{t}$ = 2.248, $\underline{df}$ = 12, $\underline{p} < .04$). As can be observed in Table 13, children cooperated more frequently with the female teachers' direct demands for compliance or attention. They were more frequently involved in periods of no interaction with the male teachers while participating in a constructive behavior. The male teachers were also more frequent recipients of physical and non-aggressive attention bids (i.e., hugging, touching, holding, petting, etc.). As can be seen in Table 14, with respect to attentive and cooperative behaviors, both boys and girls were more responsive to female teachers. Boys engaged in repeated irrelevant activities and defiant or oppositional behaviors more frequently when in interaction with the male teachers. Also, boys had a higher percentage of no interaction periods with the male teachers while participating in a constructive activity. Girls made more instrumental demands on the male teachers, in comparison to female teachers, in the form of requesting materials to achieve goals.

During the second demonstration year, children demonstrated differential responses toward the male and female teachers in terms of the following behaviors: seeking praise for a job ($\underline{t}$ = 3.035, $\underline{df}$ = 13, $\underline{p} < .01$), and defiance or oppositional behaviors

Table 13

ICL: First Demonstration Year

Summary of *t*-tests of significant proportion differences between child behaviors in interaction with male and female teachers

Child behavior category	Female Teacher (N = 7)		Male Teacher (N = 7)				
	M	SD	M	SD	*t*	*df*	*p*
Attends, cooperates	.310	.071	.191	.038	3.897	12	.06
Continues with an ongoing behavior	.010	.015	.063	.033	3.844	12	.002
Physical, non-aggressive attention bids	.017	.015	.040	.022	2.248	12	.04

Table 14

ICL: First Demonstration Year

Summary of _t_-tests of significant proportion differences between child behaviors, for male and female children, in interaction with male and female teachers

Child behavior category	Female Teacher			Male Teacher					
	M	SD	N	M	SD	N	_t_	_df_	_p_
Boys									
Attends, cooperates	.34	.14	7	.22	.05	7	2.268	12	.05
Continues with an ongoing behavior	.01	.02	7	.06	.04	7	2.784	12	.02
Engages in repeated irrelevant activity	.02	.02	7	.07	.03	7	3.190	12	.01
Defiance or oppositional behavior	.02	.01	7	.06	.03	7	3.491	12	.01
Girls									
Requests materials to achieve goals	0.0	0.0	7	.03	.04	6	2.345	11	.05
Attends, cooperates	.29	.09	7	.16	.09	6	2.661	11	.05

($t = 2.320$, $df = 13$, $p < .04$). There was an overall tendency for both boys and girls to make more positive reassurance demands on the female teachers ($t = 2.124$, $df = 13$, $p < .10$). One significant form in which these demands were expressed was through seeking praise for a job, finished or ongoing. However, for the boys the expression of positive reassurance demands also took other forms such as asking unnecessary permission or help ($t = 2.460$, $df = 13$, $p < .05$).

With respect to negative attention demands in the form of defiance or oppositional behaviors (i.e., ignoring, refusing, doing the opposite), the children, particularly girls, made greater demands on the male teachers.

Fagot-Patterson Observations

To test for sex differences in the play behavior of preschool children and the reinforcing contingencies for sex-role behaviors in environments where both male and female teachers are available, a series of observations was conducted with the Behavior Checklist (Fagot & Patterson, 1969) at the Kittredge Springs and Donner Centers. This checklist involves a listing of play behaviors and a variety of possible social consequences of participation in these behaviors. The play behaviors used included the 28 categories employed in the original Behavior Checklist and two additional categories. The same list of consequences was utilized. (For a copy of the Checklist see Appendix Q.)

The observation periods were 15 seconds in duration. Fifteen observations were made on each subject during the first demonstration year (approximately March through April) and twenty observations were made on each subject during the second demonstration year (approximately February through April), comprising a total of 765 and 1,400 observations, respectively. All observations were made during free play activity periods.

The following conditions were in effect during the observation periods: (1) The children were observed according to a randomly predetermined order. If a child was absent from school or from free play activity, the child's recording sheet was returned to the end of the list and an observation was made on the next child in the list. (2) Observers stayed in the background as much as possible while remaining within hearing distance of the child being observed. The observers avoided interaction with the children. (3) No more than two observations were made on any one child during a given observation period and no two observations were made on one child consecutively.

There were two observers, one male and one female, during the first demonstration year. Three observers, two males and one female, were involved with the study during the second demonstration year. Before the data were collected, preliminary observations were made at each center in order to determine observer reliability on the categories. The following interobserver reliabilities were obtained:

First Demonstration Year

Behaviors at Kittredge
0.88
Behaviors at Donner
0.90

Consequences at Kittredge
0.90
Consequences at Donner
0.91

Second Demonstration Year

Behaviors at Kittredge
A with B: 0.94
A with C: 0.98
B with C: 0.98

Consequences at Kittredge
A with B: 0.86
A with C: 0.93
B with C: 0.93

Behaviors at Donner
A with B: 0.92
A with C: 0.95
B with C: 0.98

Consequences at Donner
A with B: 0.90
A with C: 0.94
B with C: 0.92

During the first and second demonstration years the children at the two centers were matched with respect to age and sex. However, as the observations progressed, a number of children dropped out of the day care programs and observations of a few children had to be abandoned because of frequent or prolonged absenteeism. Consequently, during the first demonstration year 20 children, 10 males and 10 females, comprised the Donner sample, and 31 children, 18 males and 13 females, comprised the Kittredge sample. During the second demonstration year, 35 Donner children, 20 males and 15 females, and 35 Kittredge children, 17 males and 18 females, were included.

To test for the sex differences in play activities, tests were computed on the differences in proportion of time that each sex spent on each of the 30 play behaviors: Separate tests were run for each school and for each demonstration year. As can be observed in Tables 15 and 16, the two sexes have quite distinct repertoires of play behaviors. The boys were more interested in playing with transportation toys, blocks, and other like-sex tools and throwing balls and rocks, while the girls showed a higher interest in more sedate activities like cutting and pasting, playing with dolls, dressing in like-sex costume, following the teacher around, and at a slightly less sedate level, swinging and sliding.

The play preferences were shown to be stable over time. For Kittredge the rank order correlations between the first year and the second year preferences were 0.38 ($t = 2.147$, $df = 28$, $p < .05$) for the boys and 0.39 ($t = 2.214$, $df = 28$, $p < .05$) for the girls. At Donner the rank order correlations between the two years were 0.68 ($t = 4.91$, $df = 28$, $p < .001$) for boys and 0.78 for the girls ($t = 6.55$, $df = 28$, $p < .001$). During the first year, the rank order correlation between the males at the two centers was not significant, but there was a significant correlation of 0.44 ($t = 2.59$, $df = 28$, $p < .01$) between the girls at the two centers. The rank order correlations between both boys ($r = 0.84$, $t = 8.28$, $df = 28$, $p < .001$) and girls ($r = 0.82$,

Table 15

Fagot-Patterson Checklist: First Demonstration Year

Summary of *t*-tests of significant percentage differences on masculine and feminine-preferred behaviors

Behavior	Boys	Girls
Kittredge		
Cutting, pasting	4.3	12.2**
Play with water	0.0	1.5*
Play toy trucks, planes	13.4**	3.0
Play with dolls	1.3	8.6***
Play with live or toy animals	2.6**	0.0
Donner		
Use like-sex tools	6.4*	0.0
Ride trikes, cars	12.4*	3.3
Swing, slide	9.8	25.9**
Throw ball, rocks	11.0*	4.8

* p .05.
** p .02.
*** p .01.

Table 16

Fagot-Patterson Checklist: Second Demonstration Year

Summary of t-tests of significant percentage differences on masculine and feminine-preferred behaviors

Behavior	Kittredge			Donner	
	Boys	Girls		Boys	Girls
Throw ball, rocks	11.7***	4.3		10.6***	4.5
Play with dolls	0.0	.8		0.0	.7
Dress in like-sex costume	0.0	.8		.2	1.3*
Build with blocks	3.4*	1.3			
Follow teacher	3.4	7.0*			
Cutting, pasting	.3	2.9			
Play with clay	2.9	.8			
Climb a jungle gym	8.9	4.6			
Use opposite-sex tools				1.2*	0.0
Science table				1.1*	0.0
Ride trikes, cars				5.1**	1.7
Swing, slide				3.1	7.3***
Design board, puzzles				1.3	4.1

Unmarked:
p .10
* p .05
** p .02
*** p .01

$t = 7.396$, $df = 28$, $p < .001$) at the two centers were highly significant the second demonstration year.

In studying the teachers' reinforcement of sex-preferred play behaviors, a difference was observed between male and female teachers' reinforcement patterns.[31] Male teachers reinforced boys a total of 19 times on sex-preferred behaviors: Of these reinforcements, 74 percent were for masculine behaviors. Male teachers reinforced girls a total of 16 times: Eighty-one percent of these reinforcements were for feminine behaviors. The female teachers showed a different reinforcement pattern. Sixty-four percent of the total of 11 reinforcements that boys received from female teachers were for feminine behaviors. The girls were reinforced a total of 15 times by the female teachers: Of these reinforcements, 93 percent were for feminine behaviors. Thus, it appears that there is a difference between the male and female teachers' patterns of reinforcement for sex-preferred activities. There is a tendency among the female teachers to reinforce feminine behaviors more frequently than masculine behaviors regardless of the sex of the child, whereas the male teachers tend to reinforce boys for masculine behaviors and girls for feminine behaviors.[32] Feminine-preferred behaviors constituted 81 percent of the sex-preferred behaviors which received female teacher reinforcement. With respect to male teacher reinforcements, however, feminine-preferred (51 percent) and masculine-preferred (49 percent) behaviors received equal reinforcement.

An analysis of the peer reinforcement patterns shows that peers reinforce same-sex peers more often than opposite-sex peers. Boys reinforced other children a total of 95 times. Of these reinforcements, 87 percent were given to other boys. Girls were the recipients of 78 percent of the total number of 64 reinforcements given by girls. Eighty-nine percent of a total of 83 reinforcements given to boys by other boys were for masculine activities. Girls reinforced other girls a total of 50 times: Fifty-eight percent of these reinforcements were for feminine activities. Thus, it appears that not only peers reinforce same-sex peers more often than opposite-sex peers but also they reinforce these same-sex peers for same-sex behaviors. This latter tendency, however, is much stronger among boys than girls.

Observations of physical and verbal assertive-aggressive and affectionate behaviors. These observations were based on a study by Walters, Pearce, and Dahms (1957). During the second demonstration year of the project, observations were made on a total of 128 subjects at the four centers broken down into the following categories: 17 males and 20 females at Kittredge, 19 males and 16 females at Harobi, 16 males and 17 females at Donner, and 13 males and 10 females at Trinity. Each subject was paired with subjects from the other centers. This means that if a subject was lost because he withdrew from school or was ill, the data from his "match" at another school were also deleted from the analysis.

Direct observation employing predetermined categories based on Walters, Pearce, and Dahms' categories of physical and verbal aggression and affection was utilized in this study (Walters, Pearce, & Dahms, 1957) (see Appendix R). During observation periods, a check sheet was employed to facilitate recording. As in the Walters, Pearce, and Dahms study, the observation periods were one minute in length and all of the physical and verbal aggressive-assertive and affectionate behaviors which occurred within a given minute were recorded by checking the appropriate category, and recording with respect to sex and general age (i.e., child or teacher) the recipient and the performer of the behaviors. Also recorded was whether a given behavior was a contact or a response. Contacts and responses were distinguished in the present study depending on when they occurred in an interaction sequence. For example, if a given behavior was evidenced during an observation period after interaction between two or more persons was already in progress, the behavior was labeled as a response. If the aggressive behavior was employed in order to initiate interaction with another person or persons, it was designated as a contact. Twenty one-minute observations were made for each subject during the months of February and March comprising a total of 2,560 observations of one minute in length.

The following conditions were in effect during observation periods: (1) The children were chosen for observation according to a set order. If a child was absent or indisposed, an observation was made on the next child on the list and the unavailable child's check sheet was returned to the end of the list. (2) Observations were made only during periods of self-directed activity. (3) The observer remained near the child in order to hear any conversation easily. (4) Not more than two observations were made on any one child during a given day and no two observations were made on one child consecutively. (5) Each observation was one minute in duration; time was recorded by using a stop watch.

Four observers participated in these observations. Before the data were collected, preliminary observations were made at each center in order to determine if the observers could observe reliably with the categories. The observers, referred to as observers A, B, C, D, made approximately thirty observations per day, simultaneously but independently, over the course of a week until the following percentages of agreement between observers were obtained:

A with B	.82
B with C	.83
A with D	.86
B with D	.88
A with C	.82
D with C	.83

Data were analyzed according to the following objectives: (1) To compare, with respect to sex, the frequency of aggressive-assertive and affectionate behaviors initiated by the subjects at the experimental and control schools. (2) To compare, with respect to sex, the peer recipients of the aggressive-assertive and affectionate behaviors chosen in the various centers. (3) To compare the percentages of examples in which male and female teachers were chosen as recipients of aggressive-assertive and affectionate behaviors.

There were great differences among the children with regard to the number of behaviors each displayed. In order to adjust for these differences, the behaviors were converted to proportions so that the child's total behaviors always equaled one. For example, a given child's aggressive-assertive behavior might be .75 and his affectionate behavior would be .25, or if verbal and physical behaviors are being compared, the verbal might be .32 and the physical would then be .68.

Considering first the behaviors initiated by the subjects, the children at Kittredge (M = 0.15, SD = 0.09) initiated more affectionate behaviors than the children at Donner (M = 0.10, SD = 0.06) (t = 2.37, df = 29, $p < .03$). The children at Donner (M = 0.13, SD = 0.05) initiated a greater proportion of aggressive-assertive contacts than the Trinity subjects (M = 0.11, SD = 0.05) (t = -2.16, df = 20, $p < .05$). The male children at the experimental schools (Kittredge: M = 0.15, SD = 0.08; Donner: M = 0.15, SD = 0.05) initiated more aggressive-assertive contacts than the control school of the same SEL (Harobi: M = 0.11, SD = 0.11; Trinity: M = 0.11, SD = 0.06) (Kittredge vs. Harobi: t = 1.84, df = 16, $p < .09$; Donner vs. Trinity: t = -2.35, df = 10, $p < .04$). There was no difference in the proportion of aggressive-assertive behaviors initiated by the boys at Kittredge and those initiated by the boys at Donner. There were, likewise, no significant differences among the girls of the various centers on the proportion of aggressive-assertive behaviors initiated. Although there were no differences among the boys at the various centers on the proportion of affectionate behaviors initiated, the girls at Kittredge (M = 0.16, SD = 0.10) initiated more affectionate behaviors than the Donner girls (M = 0.11, SD = 0.05) (t = 1.95, df = 15, $p < .08$).

The female teachers were the recipients of a greater percentage of behaviors than the male teachers except for the verbal affectionate behavior at Donner (males = 56%; females = 44%) (see Table 17). Female peers at both centers were the recipients of more affectionate behavior, and male peers received more aggressive-assertive behavior. With the exception of verbal affection at Kittredge, peers received a greater percentage of behaviors than did the teachers.

Collapsing across the categories of initiator and recipient, the male children at the experimental centers (Kittredge: M = 0.47, SD = 0.08; Donner: M = 0.50, SD = 0.08) displayed more aggressive-assertive behaviors than the male children at the control centers (Harobi: M = 0.41, SD = 0.10; Trinity: M = 0.41, SD = 0.11) (Kittredge vs. Harobi: $\underline{t} = 2.03$, $\underline{df} = 16$, $\underline{p} < .07$; Trinity vs. Donner: $\underline{t} = -2.70$, df = 10, $\underline{p} < .03$). The Donner girls exhibited a greater proportion of aggressive-assertive behaviors than either the Trinity (Donner: M = 0.48, SD = 0.09; Trinity: M = 0.40, SD = 0.13) ($\underline{t} = -2.41$, $\underline{df} = 9$, $\underline{p} < .05$) or the Kittredge girls (Donner: M = 0.47, SD = 0.11; Kittredge: M = 0.36, SD = 0.12) ($\underline{t} = -2.78$, $\underline{df} = 15$, $\underline{p} < .02$). The four-year-old boys at Kittredge (M = 0.47, SD = 0.10) were more aggressive-assertive than the four-year-old boys at Harobi (M = 0.39, SD = 0.11) ($\underline{t} = 1.96$, $\underline{df} = 10$, $\underline{p} < .08$), but there was no difference between the five-year-old boys at these centers. The five-year-old girls at Donner (M = 0.48, SD = 0.10) were more aggressive-assertive than their counterparts at Kittredge (M = 0.35, SD = 0.12) ($\underline{t} = -2.52$, $\underline{df} = 7$, $\underline{p} < .05$).

Table 17

Recipients of Aggressive-Assertive and Affectionate Behaviors

Recipients	Donner					Kittredge			
	Verbal affection	Physical affection	Verbal aggression-assertion	Physical aggression-assertion		Verbal affection	Physical affection	Verbal aggression-assertion	Physical aggression-assertion
Female teachers	44%	56%	53%	82%		82%	80%	80%	58%
Male teachers	56%	44%	47%	18%		18%	20%	20%	42%
Number of behavior observations	45	27	34	11		88	40	40	12
Female peers	60%	47%	34%	44%		55%	60%	41%	28%
Male peers	40%	53%	66%	56%		45%	40%	59%	72%
Number of behavior observations	57	47	73	133		82	50	64	97
Teachers	44%	36%	32%	8%		52%	44%	38%	11%
Peers	56%	64%	68%	92%		48%	56%	62%	89%
Number of behavior observations	102	74	107	155		170	90	104	109

With regard to the verbal behavior, the Kittredge boys (M = 0.43, SD = 0.07) were more verbal than the Donner boys (M = 0.34, SD = 0.10) (t = 2.65, df = 13, $p < .03$). However, the Donner boys (M = 0.20, SD = 0.07) were more verbally aggressive-assertive than the Trinity boys (M = 0.14, SD = 0.06). In fact, collapsing across sex, the Donner children as a whole (M = 0.21, SD = 0.07) were more verbally aggressive than their matches at Trinity (M = 0.17, SD = 0.08) (t = -2.48, df = 20, $p < .03$). The Kittredge male children (M = 0.26, SD = 0.05) were much more verbally affectionate than the Donner male children (M = 0.16, SD = 0.06) (t = 5.03, df = 13, $p < .001$). The Trinity male children (M = 0.25, SD = 0.09) were also more verbally affectionate than the Donner male children (M = 0.16, SD = 0.06) (t = 3.96, df = 10, $p < .004$). The Kittredge females (M = 0.27, SD = 0.11) were more verbally affectionate than the Donner females (M = 0.21, SD = 0.07) (t = 2.54, df = 15, $p < .03$).

The girls at Donner (M = 0.25, SD = 0.10) were more physically aggressive-assertive than the girls at Kittredge (M = 0.19, SD = 0.09) (t = -2.00, df = 15, $p < .07$). Likewise, the boys at Donner (M = 0.34, SD = 0.06) displayed more physical aggression-assertion than the boys at Kittredge (M = 0.28, SD = 0.09) (t = -2.23, df = 13, $p < .04$).

In summary, the major findings from these observations were the following: The male children at the experimental schools were more aggressive-assertive than their matches at the control centers, and the boys at Donner were more physically aggressive-assertive than Kittredge boys. Donner girls were more aggressive-assertive than Trinity or Kittredge girls. Kittredge boys were more verbal and more verbally affectionate than Donner boys. The female teachers were the recipients of more behaviors than the male teachers were. Female peers received more affectionate behaviors, while the male peers received more aggressive-assertive behaviors. Peers were the recipients of more behaviors than the teachers were.

Discussion and Impressions

The investigators had expected nothing dramatic from the test results for the children in the experimental schools, since they were skeptical about the validity of tests for children of these ages, and realized that, even in the smaller school (Donner), the influence on children of four young men working five hours a day five days a week might not be great.

Furthermore, the evaluation of the test results was biased in the direction of being consertative. For example, the initial second year scores of 41 experimental subjects were taken after approximately 12 months of exposure to the male models. Thus, these scores which were used as the initial baselines of performance may have reflected some effects of prior male modeling.

The usual normative effects occurred -- older children compared with younger children score "better" -- i.e., they are in general more "appropriately" sex typed, more cognitively developed, and more independent as judged from a field dependence-independence test. The usual socio-economic differences also appeared, with children from higher socio-economic levels being more refined in their cognitive differentiations and their field independence.

There may be race by sex differences in change scores as a function of having males in the teaching situation: Advantaged white boys changed significantly in a masculine direction when they had males in their teaching environment, while poor black boys did not; poor black girls became more assertive (masculine?) when there were males present, while advantaged white girls became more feminine when males were present.

This difference may be a result of the fact that "street-corner fathers" are more available to poor black than to advantaged white children, particularly for black boys. Thus, the black boys will be less affected by having males added to their day care environment, whereas black and white girls and white boys will be more affected. The difference in the direction of the effect on black and white girls is not easy to understand. The phenomenon may be related to race, social class, or both, and deserves more investigation, since it seems very real.

In terms of independence (field dependence-independence), father-absent children in the experimental schools, poor or advantaged, black or white, increased more in their test scores than did children who had fathers in their homes.

The results from the present study bear out the importance of the male in the home as far as differential training for sex role behavior is concerned: Both male teachers and female teachers were overall very positively reinforcing for both boys and girls. However, male teachers selectively reinforced little boys for masculine behavior, and little girls for feminine behavior, while female teachers gave most of their reinforcements to both sexes for feminine activities. The children's peers, and this was more true for boys with boys than for girls with girls, also reinforced their friends strongly for sex-appropriate behavior.

In general, children were more demanding of the males for attention and contact. They also seemed to do more limits testing with the male than the female teachers. Girls were particularly likely to thrust the male teachers into a traditionally male role, demanding help from them.

Finally, there were some indications that having male teachers in the situation increased the trust of children in that the experimental children (who had males in the teaching situation) showed more willingness in several categories to have others approach them closely.

It also seems that little girls (perhaps more confined to their homes, less exposed to the outside world?) were more affected in this "trust" area -- became more trusting -- and the effect was more obvious for little girls who had no fathers.

Another interesting finding was that both black (poor) and white (advantaged) boys with males as teachers (the experimental children) were more assertive than boys in the control groups. Considering U.S. culture as it now stands, this is probably "good." Girls were less affected in this domain by the presence of males than were boys.

There were few race/social class differences although, as could have been predicted, the poor children in general showed less affection and more assertion-aggression (by observation) than the advantaged children. This was true for both boys and girls.

The writers believe that the increased assertiveness of children in the schools where males were present is pro- rather than anti-social -- i.e., children in the schools where males were teachers were less likely to be passive, and more likely to insist on their own rights as individuals. If, indeed, we are correct in our interpretation, this can be important for the "American way of life."

FOOTNOTES

[1] First demonstration year is defined to correlate with the regular school year and thus includes about ten months, approximately between September, 1971, and June, 1972.

[2] This figure changed to 62 percent during the second year of the project.

[3] The male caregivers were assigned fictitious names. The black caregivers were assigned names which begin with consonants, while the white caregivers' names begin with vowels.

[4] The morning and afternoon shifts were quite different in terms of the demands on the teacher and the structuring of the environment. The mornings were highly structured in terms of instructional group activities, whereas the afternoons were relatively free for naps and free play. Therefore, an arrangement whereby the male teachers experienced both halves of the day care day was considered desirable.

[5] Alan and Eric were not moved to work with different age groups after January. Alan was not moved because he accepted a full time position in the toddler area and stayed with the same group of children until the end of June. Eric was not moved to other age groups because it was deemed necessary for him to work under the close supervision of more directive teachers and this environment was found with the kindergarten group, where he was making steady progress. Thus, he continued with this group.

[6] Speculating that this problem may be more far-reaching in that the sixteen-year-old male may have too many inner conflicts concerning his own role and identity in life, and recognizing the higher urgency of this among lower-class black males, arrangements were made to acquire the services of a black male graduate student in education to conduct weekly discussion meetings with the young men. This arrangement, however, fell through at the last moment due to unforeseen schedule changes for the male graduate student.

[7] Second demonstration year is defined to correlate with the regular school year and thus includes about ten months, approximately between September, 1972, and June, 1973.

[8] Upon his return from India, Alan accepted a full time teaching position at the Kittredge Springs Center to work with a group of four-year-old children. He will continue with this job until September, 1973, at which time he will go to college.

[9] The following descriptions are based on all male caregivers who participated in the project during the second year, the two college men included.

[10] Siblings include full and half brothers and sisters.

[11] Since all the subgroups of a particular age group were located in the same physical area within the center, the males were not totally unavailable to the other children. Their availability to the other children in the group ranged from minimal during directed group instructional activities to ready availability to all children during free-play.

[12] There was also a nursery where babies between the ages of approximately 6-18 months were kept. There were only three babies enrolled in the program during the second project year. There was a full time female caregiver in the room. No male caregivers were assigned to this area.

[13] In addition to the male caregivers taking part in the project, there was one full time male caregiver at Kittredge and one part-time male caregiver at Donner during the second year of the project.

[14] During an interview, Dan mentioned several times that he occasionally tried his limits with the other teachers; he wanted to find out "how much you can get away with" and how far can the limits be pushed.

[15] In the following discussion of the male caregivers' responses to the questionnaire, Aubrey's responses are omitted because of the bizarreness of his answers.

[16] This test was administered only during the first year of the demonstration project.

[17] A modified, shorter version of the Terman-Miles Test (Alpern, 1960) was used.

[18] This test was administered only during the second year of the demonstration project.

[19] Experiences with the day care centers resulted in changes of career plans for at least two of the male caregivers and also for two of the male research staff members. Ron had planned a career as a medical technologist, but now he is working full time as a teacher in a day care center. In addition to his work, Ron is attending school part-time and plans to specialize in education for the mentally retarded. Bill had no definite plans but since he had worked temporarily as a policeman, he was considering a career as a policeman. Presently, Bill is working full time as a teacher in a day care center in addition to attending school during the evenings where he takes courses in child development and education. One of the male research staff members changed his career plans from clinical psychology to developmental psychology. Another male research staff member had majored in business administration in college, but after working with this project, he entered a graduate program in education. He is presently employed by a large company, and is studying the feasibility of the establishment of day care centers sponsored by industrial companies.

Although not representing changes, three other male caregivers have continued their interest in day care centers. Ed, who is in business for himself, continues to work on a regular basis as a substitute teacher at a day care center. Alan, after working full time as a teacher at Kittredge, is now attending college and is planning on majoring in education. Dan is attending college; he thinks he wants to join the Air Force, but eventually he plans to open a day care center with all male teachers.

[20] These ratios do not include the administrative staff of the centers.

[21] Harobi had a male administrative director during the greater part of the year while the project was going on. There were also occasional male substitute teachers. At the Trinity Day Care Center, there were no males at the administrative level; however, there were occasional male visitors and "helpers."

[22] Both Kittredge and Harobi provide babysitting-type evening care services.

[23] No match could be found for one male child.

[24] No matches could be found for two male children.

[25] There were no matches at Trinity for Donner children who were younger than three years.

[26] Children's Embedded Figures Test (CEFT) was used during the first demonstration year.

[27] This is approximate since the entire testing period for all the tests took about two months at both the initial and final test times.

[28] The self figure as well as all of the test stimuli were Fisher-Price dolls.

[29] The use of longer observation periods (60 seconds and 30 seconds) was tried with no success. There were too many interactions going on to make a reliable coding possible during these longer time intervals. A fifteen-second observation period was found to be feasible in terms of accurate observation and coding and thus was adopted.

[30] Subcategory A8 was dropped from the ICL during the second year.

[31] For this analysis, data for the two years and the two schools were combined.

[32] Caution should be exercised in this interpretation because of the small total number of teacher reinforcements involved.

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APPENDIX A

The Educational Advisory Board for the Family Learning Centers, Inc.

Mrs. Judith Arrington, Social Work, Atlanta University

Dr. R. Wayne Jones, Clinical Psychology, Georgia State University

Dr. Bernhard Kempler, Child and Clinical Psychology, Chairman of Developmental Psychology, Georgia State University

Dr. Boyd R. McCandless, Director of Developmental Psychology, Emory University

Dr. Joanne Nurss, Chairman, Early Childhood Education, Georgia State University

Dr. Lois Sauer, Elementary Education, Emory University

APPENDIX B

Introduction to the Male Caregivers

Alan

Born on July 21, 1952. Senior in high school. His job experience includes several community sponsored service projects and frequent babysitting sessions with children of various ages. Talking about one community service project, a co-worker writes, "We worked with preschool to nine-year-old black children. We always turned to Alan for help because of his patience, and the relationship he could create with the children." Alan enjoys traveling, out-of-door sports (especially camping), music and pets. He is also a Meher Baba follower and the only member of this group who has expressed a deep interest in religion. He has proven himself a very successful caregiver and in December, 1971, was offered an assistant teacher position by the Kittredge administration, that involved three more hours of work every day. He was able to adjust his schedule at school and very eagerly accepted.

Alex

Born July 1, 1951. A senior in college majoring in political science. He has worked as a reading tutor at a local community center. He comes from a big family with ten siblings.

He is married, and his wife is a teacher. Among his hobbies are sports and games, reading, creative writing, and traveling. Alex applied for the job because he was "interested in learning more about children and hope to enjoy the work while earning."

Aubrey

Born on May 26, 1955. Senior in high school. He has worked as a manual worker on factory assembly line, delivery boy, and bus boy. He has had Vacation Bible School experience with children. He enjoys music and art.

Bill

Born on February 6, 1954. Junior in high school. He has worked as a bus boy and summer division worker with the Atlanta Police Department. He is an ardent participant in football and basketball. He also enjoys music, art and travel. It is a fantastic sight to see this big football player gently cooing a baby while changing his diapers.

Bob

Born on February 26, 1954. Senior in high school. Described by his counselor as being outgoing and confident, Bob is a highly person-oriented young man. He enjoys people, particularly children. He enjoys quiet periods alone with a young child during which they converse about anything which happens to interest the child. Being a good football player himself, Bob is keenly interested in physical fitness and encourages children toward sports activities.

Dan

Born on July 26, 1955. Senior in high school. He has worked as social worker aide. Mannerly, pleasant, and always well-groomed. Good sense of humor. Likes sports, school clubs, and girls.

David

Born on June 9, 1955. Junior in high school. He has worked as a teacher's aide at Carver High. He is very much interested in out-door sports, especially football.

Ed

Born on February 16, 1953. Senior in high school. Ed has worked as a salesman and babysitter and came highly recommended even by a mother who admitted to "at first" having doubts about a male babysitter. He enjoys travel, out-door sports, and music. He is a successful caregiver and is very well liked at the Kittredge Center.

Eric

Born on April 28, 1955. Junior in high school. He has worked at a variety of jobs ranging from dishwashing to volunteer teaching with a community reading program for preschool and school aged children. His supervisor in this latter program "found him reliable, interested, and to have a constructive and helpful relationship with the children." An ardent bicycle rider, Eric enjoys out-door sports very much. He is also interested in literature, music and history.

Irwin

Born on October 26, 1951. A senior in college, majoring in political science. Married. Irwin previously worked as a mechanic and construction worker on part-time summer jobs. He enjoys tennis, fishing, and hiking.

Jack

Born on July 16, 1954. Senior in high school. He has worked as a store clerk and a bus boy. He is very fond of baseball and basketball; he also enjoys literature, art, and travel. Jack is one of those "natural" teachers who is completely at ease with the children and does a tremendous job of teaching them.

John

Born on April 25, 1955. Senior in high school. He has worked with young children before at the YMCA. He served as tutor in math and as teacher's aide. Described as "a very mannerly young man" by his counselor at high school, he has the admiration of the faculty and his peer group. He enjoys sports and is a good football player.

Oscar

Born on April 6, 1954. Junior in high school. Oscar has worked as a trash collector, bagger, and bus boy. One of his recommendations was from the mother of a little boy with whom he has babysat quite regularly. According to this mother, "Oscar has been my seven-year-old son's idol for many years." He enjoys traveling, literature, music, science and pets.

Ted

Born on September 17, 1955. Sophomore in high school. He has had babysitting and summer camp experience. Among his hobbies are football, out-door sports and traveling. With his interest in people and good sense of humor, Ted is very popular with others, peers and children alike.

APPENDIX C

Preservice Training Program:
Topics Covered

1. The early childhood program - its assumptions, goals and purposes.

2. The child and the developmental process.

3. The curriculum - behavioral objectives, methods and procedures, materials for teaching and learning.

4. The role of the teacher as the other significant adult.

5. Teacher effectiveness.

6. Behavior management.

APPENDIX D

Instructional Objectives for the Preschool Program

Prepared by June G. Miller

I. Perceptual and Conceptual Development

A. Color concepts

1. The ability to match, recognize and identify the following colors:

   red
   blue
   yellow
   green
   orange
   purple
   brown
   black
   white
   grey
   tan
   pink
   lavender
   aqua
   silver
   gold
   lime
   chartreause
   turquoise
   tangerine
   navy blue
   olive green
   cocoa (brown)
   cream - ivory - beige

2. The ability to discriminate color on the basis of its relative lightness or darkness.

3. The ability to combine color to make:

   green
   orange
   purple
   black
   brown
   pastels

B. Shape Concepts

1. The ability to match, recognize, identify and reproduce the following as a requisite to reading and writing readiness:

   a. Linear shapes

      straight
      curved
      parallel
      perpendicular
      angles
      horizontal
      vertical
      diagonal (slant line)

      (Labeling of the above shapes is incidental).

2. The ability to match, recognize, identify and reproduce the following:

   a. Two-dimensional shapes

      circle
      square
      triangle
      rectangle
      diamond
      oval
      pear
      heart
      bell
      star
      cross
      crescent - moon
      horseshoe
      ellipse
      arrow

   b. Three-dimensional shapes

      cube
      sphere
      cone
      cylinder
      rectangular box

   c. Letters - those used in:

      child's name
      labels on classroom objects and charts
      alphabet

3. The ability to perceive and identify the following design patterns:

   a. stripes - striped
   b. plaids
   c. floral
   d. print - printed
   e. dots - dotted
   f. polka dots
   g. checks - checked

   (Reproduction of the above is incidental).

C. Number Concepts

1. The ability to count by rote to 100.

2. The ability to count objects as far as the child can rote count with understanding of one-to-one correspondence.

3. The ability to conceptualize a set of 10 as a decade.

4. The ability to count by decades up to 100.

5. The ability to match, recognize, identify, and reproduce sets up to six (in some combinations, up to twelve).

6. Demonstrates an understanding of the concept of:

   a. Equal sets
   b. Equivalent sets
   c. Subsets
   d. Empty sets

7. Demonstrates an understanding of the principle that each successive set contains "one more member" than the previous set.

8. Demonstrates the ability to reproduce a set that is greater than a given set.

9. Demonstrates the ability to reproduce a set that is less than a given set.

10. The ability to see that sets can be separated into two or more subsets.

11. Demonstrates an understanding of reversibility of set separation.

12. Demonstrates an understanding of number combination and union of sets. Example:

    Set of five - one joined to four
    four joined to one
    two joined to three
    three joined to two

13. Demonstrates an understanding that the order in which two sets are joined does not alter the number of the union of the sets.

14. The ability to label a set of 12 as a dozen where appropriate.

15. The ability to recognize, identify, and reproduce numerals from 0 to 20.

16. An understanding of, and the ability to utilize zero as a numeral.

17. The ability to match numeral with object sets up to ten.

18. The ability to match, recognize and identify the printed word for numbers up to ten.

19. The ability to match the numerical symbol with the printed word for numbers up to ten.

20. The ability to match the printed word for numbers with sets of objects up to ten.

21. The ability to recognize, identify and reproduce the following fractional parts through object manipulation:

    a. Whole
    b. Half-halves
    c. Fourth-fourths
    d. Third-thirds
    e. Sixth-sixths
    f. Eight-eights

22. The ability to recognize and identify ordinal positions from first to tenth.

D. Size Concepts

1. The ability to recognize, identify and reproduce through object manipulation the following:

    a. Small, smaller, smallest
    b. Little, littler, littlest
    c. Large, larger, largest
    d. Big, bigger, biggest
    e. Huge, enormous
    f. Tall, taller, tallest
    g. Short, shorter, shortest
    h. Long, longer, longest
    i. Wide, wider, widest
    j. Fat, fatter, fattest
    k. Narrow, narrower, narrowest
    l. Thin, thinner, thinnest
    m. Skinny, skinnier, skinniest
    n. Same size
    o. Middle size
    p. Different size

2. The ability to make size comparisons where given four or more objects. Relative comparisons are made using larger than, smaller than.

E. Measurement Concepts

1. The ability to discriminate between the following concepts of linear measure:
    - a. Long, longer, longest
    - b. Short, shorter, shortest

2. The ability to demonstrate an understanding of linear measurement through the appropriate use of the following measuring instruments:
    - a. Foot ruler
    - b. Yard stick
    - c. Measuring tape

3. The ability to demonstrate an understanding of the following units of linear measurement:
    - a. An inch
    - b. 12 inches = 1 foot
    - c. 3 feet = 1 yard

4. The ability to discriminate between and label the following containers used for measuring liquid:
    - a. Cup - whole and half
    - b. Pint
    - c. Quart - pint
    - d. Gallon - half gallon
    - e. 2 cups = 1 pint
    - f. 4 cups = 2 pints = 1 quart
    - g. 1 gallon = 4 quarts

5. The ability to discriminate between and label spoons used for measuring dry or liquid substances, such as:
    - a. Tablespoon
    - b. Teaspoon
    - c. ½ teaspoon
    - d. ¼ teaspoon

6. The ability to demonstrate an understanding of the following quantitative concepts:
    - a. Some - more most
    - b. Some - less - least
    - c. Some - all
    - d. Many - more - most
    - e. Few - fewer - fewest
    - f. Greater than (more than)
    - g. Less than

7. The ability to demonstrate an understanding of the equivalence of measure.

8. The ability to demonstrate an understanding of the following weight concepts:

   a. Heavy - heavier - heaviest
   b. Light - lighter - lightest
   c. Relativity of weight (i.e., standard units, size, volume, conservation, etc.)
   d. The use of scales as an instrument to determine the exact weight of objects
   e. Balance

9. The ability to discriminate between conditions of volume:

   a. Empty - full
   b. Half full - half empty
   c. Fuller than
   d. Less full

10. The ability to demonstrate an understanding of the thermometer as an instrument for measuring the exact temperature of air, liquids, solids and the body.

F. Positional Concepts

1. The ability to demonstrate understanding of the following:

   a. Over, above, on
   b. Under, below
   c. Top, on the top, at the top
   d. Bottom, on the bottom, at the bottom
   e. Front, in front of
   f. Back, in back of, behind
   g. Side, at the side, on the side
   h. In, inside
   i. Out, outside
   j. Between, in the middle
   k. Across
   l. In the corner, at the corner
   m. Right, (at, on) the right
   n. Left, (at, on) the left
   o. Here
   p. There
   q. Next to, beside
   r. Edge, on the edge
   s. Near, nearer, nearest
   t. Close, closer, closest
   u. Far, farther, farthest

v. Around
w. Before
x. After

G. Motion Concepts

1. The ability to demonstrate understanding of the following:

a. Back - forth
b. Up - down
c. In - out
d. Stop - go
e. Hop - skip - jump
f. Crawl - creep
g. Wiggle
h. Twist
i. Turn
j. Kneel
k. Stomp
l. Fly
m. Tap
n. Slam
o. Open - shut - close
p. Close
q. Run
r. Walk
s. Fast, faster, fastest
t. Quick, quicker, quickest
u. Slow, slower, slowest
v. Rise - fall
w. Bend
x. Strut
y. Waddle
z. Climb
(a) Gallop
(b) Slide
(c) Skid
(d) Slip
(e) Glide
(f) Stoop

H. Time Concepts

1. The ability to demonstrate understanding of the following:

a. Night, day
b. Morning, noon, night
c. Afternoon, evening
d. Yesterday, today, tomorrow
e. This week, next week, last week
f. Weekend
g. This month
h. Meals - breakfast, lunch, dinner
i. Seasons - fall, winter, spring, summer
j. Calendar as instrument for indicating period of time - month, day, week
k. Clock as instrument for indicating the hour of the day

2. The ability to recall the name of the month.

3. The ability to recall in sequence the name of each day of the week.

4. The ability to match large and small hand placement of model clock with those on real instrument.

5. The ability to identify numerals on clock face.

6. The ability to identify numerals indicated by large and small hand placement on clock.

7. The ability to demonstrate understanding of:

    a. Before - after
    b. Now - soon - later
    c. Early - later
    d. Sometime
    e. After a while - in a little while
    f. A long time ago - long ago
    g. Day after tomorrow
    h. Day before yesterday

8. The ability to demonstrate an understanding of age concepts:

    a. Young - younger - youngest
    b. Old - older - oldest
    c. Years of age
    d. Birthday

I. Kinesthetic - Tactile Discrimination

1. The ability to discriminate between the following conditions of texture:

    a. Hard, harder, hardest
    b. Soft, softer, softest
    c. Thick, thicker, thickest
    d. Thin, thinner, thinnest
    e. Rough, rougher, roughest
    f. Smooth, smoother, smoothest
    g. Sticky - not sticky
    h. Elastic - firm
    i. Sharp - dull
    j. Solid - liquid
    k. Frozen - melted
    l. Dry - wet
    m. Fluffy
    n. Fuzzy
    o. Silky
    p. Velvety

2. The ability to discriminate between the following conditions of temperature:

    a. Hot, hotter, hottest
    b. Cold, colder, coldest
    c. Cool, cooler, coolest
    d. Warm, warmer, warmest

3. The ability to demonstrate an understanding of the concept of relativity in temperature description.

4. The ability to discriminate between the following conditions of weight through object manipulation:

   a. Heavy, heavier, heaviest
   b. Light, lighter, lightest

J. Taste - Olfactory Discrimination

1. The ability to discriminate between the following taste qualities of a substance:

   a. Sweet
   b. Sour
   c. Bitter
   d. Salty

2. The ability to identify familiar foods and beverages through use of taste cues (flavors) such as:

   a. Orange
   b. Lemon
   c. Grape
   d. Cherry
   e. Tomato
   f. Banana
   g. Chocolate
   h. Vanilla
   i. Peanut (peanut butter)
   j. Cinnamon
   k. Clove
   l. Mint (peppermint)

3. The ability to perceive the odor or aroma of familiar substances and to identify a substance through its scent.

K. Visual Discrimination

1. The ability to discriminate between the following conditions of light:

   a. Light - dark
   b. Bright - dim
   c. Shiny - dull
   d. Clear - blurred

2. The ability to discriminate likenesses and differences in each of the following:

   a. Forms
   b. Objects
   c. Pictures
   d. Word symbols
   e. Letters
   f. Numerals

Discrimination made on the basis of likenesses and differences should include the following dimensions where applicable: color, shape, size, number, and external-internal part, and orientation differences.

3. The ability to perceive relationships among objects and to categorize them according to some definite scheme:

   a. Color
   b. Size
   c. Shape
   d. Form
   e. Texture
   f. Material from which made
   g. Type of class
   h. Function

4. The ability to perceive missing parts of objects and identify the missing part.

5. The ability to perceive, copy and reproduce designs with model present. Some suggested techniques follow:

   a. Arrangement of beads on a string
   b. Arrangement of blocks in two and three dimensional designs
   c. Arrangement of pegs on pegboard
   d. Design cards with patterns for pegboards, parquetry blocks, plastic chips, and construction paper forms.

6. The ability to reproduce designs with model removed using techniques as suggested above.

7. The ability to perceive and repeat designs in a sequence using the techniques suggested (patterning) in #5 above.

8. The ability to perceive the sequence of events in pictures and to sort pictures according to order of happening.

9. The ability to perceive the presence of new objects related to the environment and to verbalize what has been added.

10. The ability to perceive absence of familiar objects associated with immediate environment and to verbalize what is missing.

11. The ability to perceive changes made in the state of an object or substance and to become aware of the external force that is responsible for the change. Examples:

    a. Melting - heating
    b. Freezing - cooling
    c. Wetting - liquid
    d. Drying - air

12. The ability to perceive progression from left to right, top to bottom, and front to back.

L. Affective States - Discrimination and Imitation

1. The ability to discriminate, label and reproduce through imitation outward manifestations of emotion such as:

    a. Happiness
    b. Pleasure
    c. Contentment
    d. Well-being
    e. Sadness
    f. Anger
    g. Fear
    h. Pain
    i. Pride
    j. Excitement
    k. Loneliness
    l. Shyness
    m. Shame

II. Language Development

A. Auditory Discrimination (Listening)

1. The ability to understand the concept of sound and the absence of sound (quiet).

2. The ability to discriminate between and demonstrate an understanding through reproduction, the following conditions of sound:

    a. Soft, softer, softest
    b. Loud, louder, loudest
    c. High, higher, highest
    d. Low, lower, lowest
    e. Quiet, quieter, quietest
    f. Noisy, noisier, noisiest

3. The ability to discriminate between and identify various sources of sound. Examples:

    a. Sounds made by animals
    b. Voices of children and teachers
    c. Sounds made by movement of objects in classroom

4. The ability to discriminate and identify a specific sound and its source when more than one sound is presented simultaneously.

5. The ability to reproduce sound patterns using such instruments as drums, telegraph keys, rhythm sticks.

6. The ability to recognize a designated word when read in a multi-word context.

7. The ability to recognize and reproduce similarities in parts of words.

    a. Word ending sounds - rhyming
    b. Initial sounds in words

8. The ability to repeat in stated order a word sequence of at least five words. Example:

    a. Man, cat, log, flower, apple
    b. Six, four, five, one, two

9. The ability to carry out in stated sequence a directional command consisting of at least five tasks. Examples:

    Go over to the library table, take the blue book off of the table and put it over on the counter by the fish tank. Turn off the light above the fish tank and go sit at the library table.

B. Verbalization (Speaking)

1. The ability to communicate at an oral level using:

    a. Whole words
    b. Phrases
    c. Complete sentences

2. The acquisition of new vocabulary words and incorporation of these words in every day conversation.

3. The ability to verbalize spontaneously in a conversation.

4. The ability to memorize nursery rhymes, poems, songs, and to repeat them with a skill that evidences understanding of content and articulation.

5. The ability to respond to pictures and to formulate relationships between stimuli in pictures.

6. The ability to sense "correctness" of word pronunciation or grammatical form used in speech and to check incorrect usage through imitation of correct model.

7. The ability to use compound and/or complex sentences with clauses and phrases as well as participles, gerund, and infinitive forms of verbs.

8. The ability to use past and future tense as well as present.

9. The ability to use both the nominative and objective forms of pronouns, also the singular and plural forms of nouns and pronouns.

10. The ability to verbalize full name, address and telephone number.

11. The ability to answer questions related to the properties of an object by using both affirmative and "not" statements. Examples:

What is this?
This is a ball.
This is not a block.

What is this not?
This is not a block.
This is a ball.

12. The ability to make declarative statements about an object by stating at least six different qualities of what the object is and is not, on the basis of color, size, shape, texture, function, classification, and relationship. Example:

This is a ball.
It is red.
It is large.
It is round.
It is hard.
It is to play with.
It is a toy.
It is shaped like an orange.

13. The ability to make statements using comparative forms of opposites to describe the relationship of two items. Example:

Let's compare the red ball and this blue ball.
The red ball is larger than the blue ball.
The red ball is heavier than the blue ball.

14. The ability to make valid inferences about objects or events on the basis of what is known, using if-then statements.

15. The ability to understand a question and answer situation and to give an appropriate response to a question, answering in a complete sentence. When part of an instructional group activity, standards should be set for the desired response. The following sequence is suggested:

    (1) Listen carefully to the question.
    (2) Formulate the answer believed to be correct.
    (3) Signal with raised hand.
    (4) Wait to be recognized.
    (5) Give response in complete sentence.

16. The ability to comprehend (decode) and state (encode) questions with the following introductory words:

    a. Who
    b. What
    c. When
    d. Where
    e. Why
    f. How

17. The ability to make "I don't know" statements when cues are insufficient to make valid deductions. Example:

    Place a closed box on the table. Ask children if the box is heavy or light. A response of either "heavy" or "light" would be only a guess as the children would have to lift it in order to make a valid judgement of weight. Children can learn that they are "guessing" when they attempt to answer without enough information.

18. The ability to classify objects on the basis of a known quality universal to the category in question. Example:

    If it is an object to play with, it is a toy.
    A toy is an object to play with.
    A ball is to play with.
    A ball is a toy.

19. The ability to recall sequences of events.

20. The ability to interpret the plot of a story in the following ways:

    a. Drawing relationships.
    b. Making inferences.
    c. Anticipation episodes.
    d. Predicting ending - logical ending, alternate possible ending.
    e. Supporting conclusions with relevant details.
    f. Synthesizing the "main idea".
    g. Interpreting affective states.
    h. Drawing analogies between story situations and life situations.

21. The ability to use problem solving techniques in the following sequences:

    a. Identify problem.
    b. Identify information and/or materials needed to solve a problem.
    c. Evaluate suggested solutions.

22. The ability to use visual discrimination, auditory perception and critical thinking skills in combination either simultaneously or in rapid succession to the solution of tasks.

23. The acquisition of a sight reading vocabulary to include:

    a. Child's own name
    b. Names of other children in group
    c. Classroom objects that have been labeled
    d. Names of the days of the week
    e. Name of the current month
    f. Words for numerals (one - ten)
    g. Words selected by the child

APPENDIX E

Letter Introducing the Demonstration Project to the Parents

TO: All Parents of Kittredge Schools

We have been fortunate to make arrangements with Family Research and Development Foundation to cooperate in a demonstration grant to evaluate the effects of introducing young men into day care. The Foundation project is being funded by the United States Office of Child Development. Dr. Boyd McCandless serves as Principle Investigator of the project and describes the work in this way.

"At this time, all responsible authorities in the child development field whom we know are concerned, even anxious, about the inadequate amount of time young children (through elementary school at least) are able to spend interacting with significant male figures in their lives. The developmental frustrations resulting from this lack have been clearly and widely demonstrated for boys for many years; but more recently it has been shown that little girls benefit as much as boys from interactions with adult males, but that the effects do not show themselves so immediately and dramatically as among boys.

The opportunity to interact with male caregivers seems to accelerate academic performance, benefit intellectual growth, speed up moral development, and give both boys and girls a clearer and more relaxed grasp on their own maleness and femaleness. You may want to look up an article in the March, 1971, Young Children, by Mavis Hetherington and Jan Deur in which they document in great detail the disadvantages that accrue when boys and girls have too little chance to interact with adult males; or a mimeographed paper by Boyd McCandless, "Schools, Sex Differences, and the Disadvantaged Male," that is being published through Georgia State University. Copies of this are available from Mrs. Rollings or Miss Jenkins. These sources give ample support to our goals in introducing young males into day care.

To secure the services of young men, the Foundation went to Mr. Green, Chief Counselor at DeKalb Adult High School. He selected a panel of young men (mostly juniors and seniors) on the basis of their interest and desirable personal characteristics.

From this panel, those involved in the demonstration and research selected four young men, two of whom work in the mornings, two in the afternoons. Mr. Cain, Chief Counselor at Atlanta's Carver High School, did the same preselection for the Foundation. From his panel, four young men were selected who are currently working at Donner, two in the morning, two in the afternoons. The young men are paid, and have received intensive preservice training under the direction of Mrs. June Miller, Educational Coordinator. Regular inservice training continues for the young men, as it will over the course of the project.

To evaluate the effects of the demonstration project, the project staff will administer a few competence and interest tests. These include: Embedded Figures Test, and Children's Control and Evaluation Scale, tests believed to assess the child's independence and initiative; Peabody Picture Vocabulary Test, a measure of the child's receptive vocabulary; the Rabban and IT preference tests, which are believed to indicate the child's choice of boy's and girl's games and playmates; the Comfortable Interpersonal Distance Scale, which relates to the child's degree of comfort with other people. All these tests are appealing to children, and taking them rather intellectually stimulating. These are all commonly used tests in child development research.

The results of these tests will be used to evaluate the effects of introducing males as significant adults in a day care program. From other studies related to this project, we are sure the results are going to be exceptionally valuable in aiding healthy personal and social development for the children. We expect that reports will be written concerning the project and published in professional journals and other publications concerned with child development and welfare. Of course, individual children are never identified in such publications. All of us in the Foundation regard this as an exciting and constructive educational innovation.

Any of you who wish to find out more about this project are cordially invited to talk with any of the full time or consulting staff of Kittredge or Donner."

This is a rather extensive explanation of the project, but Family Learning Centers' staff believes our parents will share the excitement of being associated with a group who is trying to work constructively for quality day care. The staff of the Foundation has committed themselves to providing feedback to the parents on the results of the project. I'm sure you will look forward with us to such a program.

Sincerely,

R. Jeff Marsh, President
Family Learning Centers, Inc

CONSENT FORM

All ethical precautions are to be taken with the data. The overall project is being directed by Dr. Boyd McCandless, Director of Educational Psychology, Emory University, a Fellow and Diplomate in Clinical Psychology of the American Psychology and the Division of Developmental Psychology of the American Psychological Association. He is also Editor of the American Psychological Association's journal, Developmental Psychology. As stated above, he will be glad to answer any questions you wish to ask. His office telephone is 377-2411, Ext. 7571; his home telephone is 633-2134.

I ( ) Am Willing / ( ) Am Not Willing For ______________________

to take the tests described above and use the results obtained in evaluating the effects of the demonstration project.

____

PARENT'S OR PARENTS' NAME

APPENDIX F

Evaluations of the Kittredge Male Caregivers at the Conclusion of the First Demonstration Year

Subject: Work Performance of Eric
Evaluator: Center Director

Eric has shown real growth since joining the program at Kittredge Springs. I feel that he has profited from his experience with us and has a good rapport with the children. Eric is the youngest of the boys and the least mature. He had great difficulty adjusting to the demands of working with young children, particularly as a role model; some of his actions were very inappropriate. We have seen definite improvement with Eric. He has learned to set standards for the children and follow through with them. He is warm and affectionate and well-liked by the children.

While his "appearance" is less than ideal, he is a good speech model and his attendance and reliability have been good. Eric apparently likes his job, but his enthusiasm and eagerness to move are difficult to ascertain. Eric is not, at this point, well-suited to work with children and I do not recommend that he continue in the program.

Subject: Work Performance of Eric
Evaluator: Teacher of the Kindergarten Children

Observing Eric's growth has been an unusual and rewarding experience for me. He was initially unattuned to the goals of early learning and the role that modeling plays in early education. He made frequent errors in judgment and was considered by his Kittredge supervisors to be unapproachable and not easily directed.

I have found Eric's attitude toward criticism and direction to be extremely mature. He actively seeks help and direction and on important issues he assimilates knowledge and needs little redirection. He has made great strides in understanding the necessity of providing a positive role model for the children. I do think however, a strong supervisor is a necessity to insure Eric's continuing growth.

Perhaps Eric's greatest contribution in the kindergarten was his untiring and consistent direct involvement with the children. He sought them out and worked on projects with them rather than remaining aloof or giving suggestions and then leaving them to their own devices. The children are sensitive to the extent of his interest and react accordingly.

I think Eric is now able to make a positive contribution to any group of children and I do hope he will continue with the Foundation's project at Kittredge Springs.

Subject: Work Performance of Alan
Evaluator: Center Director

Alan is probably my favorite among the boys. It is extremely rare to meet a young man with as much common sense and maturity as Alan has. He moved into the program smoothly and has consistently demonstrated flexibility and enthusiasm. He is eager to take on additional responsibilities and gets along well with the other teachers.

Alan was so effective he was employed full time as an assistant teacher in the nursery. He has done quite a bit of reading which has helped him develop a good program for his concept group. He has learned to use behavior modification techniques and has even helped the other nursery teachers implement positive reinforcement. Alan has a natural rapport with children and is well-liked by all the children.

Working in the nursery requires a great deal of attention to the nitty-gritty (diapering, laundry, etc.) and if Alan has a shortcoming, it is in this area. However, his overall sense of responsibility has been invaluable. He is punctual and has a good attendance record with us. I strongly recommend that he continue with us.

Subject: Work Performance of Ed
Evaluator: Center Director

We have really enjoyed having Ed work with us at Kittredge Springs. He moved into the program very smoothly and made good transitions from one age group to another. He is enthosiastic, eager to take on additional responsibilities and works well with other staff members.

Ed has an easy, natural relationship with children and is well-liked by all of them. He is sensitive to their needs especially in the area of socio-emotional development. Ed needs to become more familiar with the educational and psychological literature and could use some guidance with behavior modification techniques. He has had a few ups and downs with parents, but this was due to poor communication and oversight and was easily corrected.

Ed is an attractive young man with pleasing voice and manners. He is punctual and has good attendance with us. I feel that he has made a valuable contribution to our program and strongly recommend that he continue in the program. Until he develops additional strengths in curriculum, he might be most comfortable in a nursery setting.

Subject: Work Performance of Oscar
Evaluator: Center Director

Oscar is the most difficult of the boys to evaluate. He moved into the program quite smoothly, but his performance has been inconsistent. He did quite well with the four-year-old afternoon program, probably due to its informal and unstructured nature. Although he does not take a great deal of initiative, he always does willingly what he is asked to do. I think he likes working with children and they have responded fairly well to him, but he is not overly enthusiastic. He has difficulty setting standards and controlling the children and needs more guidance in behavior modification techniques.

The biggest problem we have had with Oscar is his attendance and punctuality. He would have been a great deal more effective had he been present all of the time. He does an adequate or more than adequate job when he is here, but I do not feel that he has the commitment to the program necessary to continue in the fall.

APPENDIX G

Evaluations of the Donner Male Caregivers at the Conclusion of the First Demonstration Year

The four Donner male caregivers were evaluated in terms of the attached standard Family Learning Centers Teacher Evaluation Form, which is a five-point rating scale ranging from 1 (poor) to 5 (excellent). The evaluator was the lead teacher at the Donner Center. The results of these evaluations are summarized for each male caregiver and for all four male caregivers in the following table.

	Bill	Ted	David	Jack	Average rating for the 4 male caregivers
I. Job Knowledge	3.80	4.10	2.00	3.10	3.25
Planning	4.50	4.50	1.00	2.67	3.17
Implementation	4.25	4.71	1.43	2.71	3.28
Evaluation	3.67	4.00	2.50	3.00	3.29
Physical care of children	3.50	4.50	3.50	4.00	3.88
Behavior management	3.00	3.00	1.60	3.20	2.70
II. Personal Qualities	4.00	4.10	2.40	3.50	3.50
Professional attitude	3.50	3.60	2.67	3.67	3.36
Sense of responsibility	4.00	4.50	3.00	3.50	3.75
Initiative	4.50	4.50	2.00	3.00	3.50
Enthusiasm	3.83	4.00	2.57	3.50	3.48
Flexibility	4.00	4.00	2.00	3.67	3.42
III. Physical Attributes	4.10	3.40	4.30	4.40	4.05
Health	4.25	4.00	4.33	4.25	4.21
General attributes	4.00	2.75	4.25	4.50	3.88
IV. Overall Evaluation	4.50	4.00	1.00	3.00	3.13

FAMILY LEARNING CENTERS, INC.

Teacher Evaluation

Name: ______________________________ Date: ______________

Position: ___________________________ Age Group: __________

Evaluator: __________________________ Name of Center: ________

(5) Excellent - employee is above range of expectations for his present job. He (she) should be considered for advancement if majority of scores are excellent.

(4) Good - employee is above average; needs to be challenged to strengthen any areas of weakness.

(3) Average - employee meets job requirements, needs to be motivated to improve abilities.

(2) Fair - employee is not meeting job requirements satisfactorily, needs specific input and direction to improve.

(1) Poor - employee lacks skill and motivation to meet job requirements. This employee must be given prescriptive directions as to how to improve his (her) skill. If majority of evaluative scores are "poor," this employee should be considered for a less responsible position or should be released.

I. Job Knowledge

A. Planning

1. Quality of performance indicates daily planning.	1 2 3 4 5
2. Continuity suggests long range planning.	1 2 3 4 5
3. Plans are appropriate and show sensitivity to individual child.	1 2 3 4 5

4. Plans show sensitivity to the developmental needs of the child. 1 2 3 4 5

5. Planning shows consideration for specific objectives. 1 2 3 4 5

6. Plans show resourcefulness in choice and development of materials. 1 2 3 4 5

7. Planning suggests structure and clear limits, but is flexible to allow for incidental learning. 1 2 3 4 5

8. Plans reflect continuity for overall program. 1 2 3 4 5

B. Implementation

1. Effective follow through of plans. 1 2 3 4 5

2. Capitalizes on incidental learning. 1 2 3 4 5

3. Demonstrates creative use of materials. 1 2 3 4 5

4. Pacing is in keeping with individual abilities and situational demands. 1 2 3 4 5

5. Transitions are smooth and minimally disruptive. 1 2 3 4 5

6. Activities, materials and physical environment suggest careful attention to minimize disorganization and time loss. 1 2 3 4 5

7. Maintains a clean and well-ordered classroom environment which supports the program. 1 2 3 4 5

8. Provides strong working role model for children and co-workers. 1 2 3 4 5

C. Evaluation

1. Demonstrates ability to evaluate and prescribe for individual children. 1 2 3 4 5

2. Evaluations are action-oriented rather than rationalized excuses.

    (a) Evaluations are regular and provide guidance information for parents and staff. 1 2 3 4 5

    (b) Evaluations are translated into effective plans and actions. 1 2 3 4 5

3. Demonstrates ability to evaluate self. 1 2 3 4 5

4. Demonstrates ability to make optimum use of criticism and constructive suggestions from program leadership. 1 2 3 4 5

5. Provides constructive, appropriate program suggestions for staff. 1 2 3 4 5

D. Physical care of children

1. Encourages children's self-help skills. 1 2 3 4 5

2. Demonstrates concern with children's physical care, children are clean, neat and comfortable. 1 2 3 4 5

3. Adjusts rest times to meet individual child's needs and provides quiet activities for the last half of rest time. 1 2 3 4 5

E. Behavior management

1. Maintains a positive classroom atmosphere. 1 2 3 4 5

2. Sets clear limits and standards for children. 1 2 3 4 5

3. Uses behavior modification techniques effectively in shaping behavior.

    (a) Selects appropriate reinforcing agent. 1 2 3 4 5

    (b) Establishes appropriate reinforcement schedule for each child. 1 2 3 4 5

(c) Is consistent in reinforcement procedures and standards. 1 2 3 4 5

II. Personal Qualities

A. Professional attitudes

1. Respects the confidences of children, parents and co-workers. 1 2 3 4 5

2. Works closely and effectively with parents. 1 2 3 4 5

3. Establishes positive rapport with subordinates, peers and superiors. 1 2 3 4 5

4. Keeps abreast of developments in those fields such as child development, psychology, education, which provide input for professional growth. 1 2 3 4 5

5. Shows interest in and attends parents' meetings. 1 2 3 4 5

6. Makes constructive contributions during in-service training sessions. 1 2 3 4 5

B. Sense of responsibility

1. Makes judgments and assumes responsibility for the results. 1 2 3 4 5

2. Assumes responsibility for tasks over and above those specifically delineated for the job. 1 2 3 4 5

C. Initiative

1. Develops alternative activities to augment planned program. 1 2 3 4 5

2. Takes on jobs contributing to staff support and morale. 1 2 3 4 5

3. Assumes a role of leadership when situation calls for action. 1 2 3 4 5

4. Contributes own ideas and materials to help support activities of others. 1 2 3 4 5

D. Enthusiasm

1. Shows a positive approach to criticism of self and co-workers. 1 2 3 4 5

2. Eager to move to action. 1 2 3 4 5

3. Displays animation in interactions with children. 1 2 3 4 5

4. Displans animation in interactions with adults. 1 2 3 4 5

5. Approaches problems with confidence and positive affect. 1 2 3 4 5

6. Actively supports the efforts of others through word and actions. 1 2 3 4 5

E. Flexibility

1. Responds and adjusts to new situations quickly. 1 2 3 4 5

2. Handles most problems independently. 1 2 3 4 5

3. Asks for help when needed and is able to use this help effectively. 1 2 3 4 5

III. Physical Attributes

A. Health

1. Has satisfactorily completed doctor's physical examination. 1 2 3 4 5

2. Has the vitality to do his (her) job effectively. 1 2 3 4 5

3. Attendance (6 months to date of this report)

(a) Total absences _____

(b) Punctuality 1 2 3 4 5

(c) Attendance 1 2 3 4 5

4. Is emotionally stable. 1 2 3 4 5

B. General attributes

1. Is neat in appearance. 1 2 3 4 5

2. Uses correct grammar when speaking. 1 2 3 4 5

3. Voice is pleasing, and uses correct enunciation. 1 2 3 4 5

IV. Overall Evaluation and Prescription

Circle which best reflects your overall appraisal of this employee:

1. Excellent
2. Good
3. Average
4. Fair
5. Poor

Which areas of performance or personal requirements require improvements?

What steps and planned dates for completion are assigned to help in accomplishing the required improvement? (To be completed with cooperation of employee).

Is this employee eligible for a salary increase? If so, what amount do you recommend?

Evaluate this employee's potentiality to date:

1. This employee should be advanced.
2. This employee should remain where he (she) is and be given greater responsibility.

3. This employee should remain where he (she) is and should take advantage of in-service.

4. This employee should meet the specific tasks outlined above in order to retain present position.

5. This employee should be released or placed in a less responsible position.

V. Evaluator

1. How long have you supervised this employee?______________

2. What was the employee's reaction to this interview?

____________________	____________________	__________
(Signature)	(Title)	(Date)

APPENDIX H

Evaluations of the Male Caregivers at the Conclusion of the Second Demonstration Year

The four Kittredge men were evaluated in terms of the previously mentioned Teacher Evaluation Form (see Appendix G). The table on the next page summarizes the results of these evaluations, for each young man and for the four male caregivers combined. The letters of evaluation by the female teachers with whom the males worked are also included in this appendix. For the Donner male caregivers, the letters of evaluation by the lead teacher and/or Center Director are included.

Summary of Evaluations of the Kittredge Men at the End of the Second Demonstration Year

	Bob	Irwin	Eric	Alex	Average rating for the 4 male caregivers
I. Job Knowledge	1.17	5.00	3.04	3.68	3.22
Planning	1.25	5.00	3.13	--	3.09
Implementation	1.25	5.00	2.75	3.71	3.18
Evaluation	1.00	5.00	3.33	4.00	3.33
Physical care of children	1.33	5.00	3.00	4.00	3.33
Behavior management	1.00	5.00	3.00	3.00	4.00
II. Personal Qualities	1.35	5.00	2.85	4.13	3.33
Professional attitude	1.25	5.00	3.83	4.50	3.65
Sense of responsibility	1.50	5.00	1.50	4.00	4.00
Initiative	1.00	5.00	2.75	4.00	3.19
Enthusiasm	1.67	5.00	3.17	4.17	3.50
Flexibility	1.33	5.00	3.00	4.00	3.33
III. Physical Attributes	1.96	5.00	3.92	4.00	3.72
Health	2.25	5.00	4.50	4.00	3.94
General attributes	1.67	5.00	3.33	4.00	3.50
IV. Overall Evaluation	2.00	5.00	3.00	4.00	3.50

Evaluations of the Kittredge Male Caregivers

Subject: Work Performance of Bob
Evaluator: Lead Teacher

Bob seemed right at home in our school and really enjoys the children. He is willing to do most anything you ask him to do. He is late and absent a lot. He is very enthusiastic. He needs a lot more guidance with behavior modification.

He does not follow the guidelines set by Kittredge policy. He needs a lot of pushing to keep on the "right track." He has said and done things in my class that I personally do not approve. He is very young and immature and maybe I am being too hard on him.

Subject: Work Performance of Irwin
Evaluator: Lead Teacher

Everyone at Kittredge has enjoyed working with Irwin. He is easy-going, good-natured, and the kids love him. Many of the parents have expressed their pleasure in the way he deals with the children. He is consistent and provides a good model for them. He has a lot of initiative, works hard, and is going to be sorely missed.

Subject: Work Performance of Eric
Evaluator: Lead Teacher

Eric began working with our kindergarten program in September, 1972. He was already familiar with Kittredge policies and procedures. He had worked previously with the kindergarten program and adjusted quite easily to our schedule.

Until the end of January Eric worked almost entirely with me and my group of children, occasionally teaching a lesson which I had prepared. He did quite well with these lessons - discipline was no great problem. Often he stimulated more interest and discussion than I could have done. Eric has an amazingly broad vocabulary and has always seemed to enjoy talking with the children about "meaty" subjects - scientific explanations, discussions of mythology and word origins.

In January, we divided our children into groups of nine or fewer with five such groups having one group in Rebus, math, and science/language each, and the remaining two groups in an area designated for art, games, or independently done work. Eric was usually supervising this area. He seemed quite nervous about handling this group of 18 children at first, but he managed pretty well. After a few days, however, he began more and more to devote his attention to one or two children, or to sit and do his own art work, and to be pretty much oblivious to the rest of his group. This did not seem to bother the children in his group since they were supposed to be learning to "work" independently. However, they would not stay in their own area, many would waste the entire period, and their lack of supervision by Eric was an almost constant source of disruption to the other groups and a great contribution to the already high noise level. In speaking to Eric about this problem, I felt that he would improve temporarily but then relapse to his old habits.

This habit of directing himself to only a very few children at a time did cause us great problems during our structured, directed activities of the morning but was probably somewhat favorable to the male-in-day care study. During selected activity or outside, Eric was almost never without one or two children with whom he talked about all subjects for great lengths of time. However, contrary to one of the study's objectives, Eric could never be relied on, even at the end of the year, to lead or be in charge of a large group of children. Therefore, the kindergarteners probably never viewed him as significant or as responsible an adult as a teacher or caretaker.

Despite his lack of responsibility in some areas (which can be accounted for to some extent by his age), Eric was extremely consistent in attendance and punctuality. He tried very hard to follow the principles of behavior modification, although sometimes his punishment for a child was to pick him up roughly and carry them to a locker or out of the room. Eric seems very interested in children and is a very interesting person in his own right. He added quite a bit of humor and intelligence, as well as frustration, to the kindergarten.

Subject: Work Performance of Alex
Evaluator: Lead Teacher

It has been a pleasure to have Alex work with our nursery staff. He is always ready and willing to take action when necessary. Alex never has to be told what to do except when a teacher is out and I ask him to take the group for the day. This means he takes physical care of those children and handles the concept group for the absent teacher. He has done this willingly and successfully whenever asked. He has only had to do actual planning of a concept group a few times. He showed imagination and enthusiasm in this type of short-notice planning. I'm sure with Alex's intelligence and insight he could plan two weeks in advance and follow through daily with his plans if he were a teacher here.

Alex worked well with all the children (no child showed fear or dislike of him) in the nursery. I noticed him giving special attention to children who lack fathers in the home. This really showed me how much he cared and understood. The children liked Alex very much. He has helped them develop physically and emotionally. Alex could use some more on-the-job training in behavior modification. I'm sure he knows the basics but he needs work on follow through, limiting isolation periods to two minutes, gentler handling of children, giving fair warning, and setting fair limits of expected behavior.

Alex is a handsome young man with good manners and a nice voice. He has certainly been an asset to our nursery program. For all the energy and love he gave to these children, I'm sure he got much in return. The children, especially the fatherless ones, have greatly benefited from Alex's healthy attitude toward life.

I would definitely recommend him highly for any job working with children.

Evaluations of the Donner Male Caregivers

Subject: Work Performance of Ted
Evaluator: Lead Teacher

Ted's ability to plan appropriate total group activities was evident in the planning of his rhythm experience. He also can improvise meaningful learning experiences for children.

In implementing daily lesson plans, Ted has smooth transition, paces reasonably well, follows through effectively, and provides a strong role model. He often contributes ideas and materials.

Ted encourages the children in self-help skills and shows concern for children's physical care and comfort.

Ted did not need to use behavior modification on the total group but he did use it with some success on children with special needs.

Because of his positive rapport with subordinates, peers, and superiors, he could be dubbed Mr. Congeniality. Ted also assumes responsibility for many tasks over and above those specifically delineated for his job. By far, one of his most outstanding qualities is to assume a role of leadership when the situation calls for action.

Ted displays confidence and animation in his interactions with children. He actively supports the efforts of others through his actions. He responds and adjusts to new situations quickly. He handles most problems independently but asks for help when needed and uses it effectively. His appearance is neat and voice pleasing. Ted is considered a most priceless and valuable worker in all aspects of job performance.

Subject: Work Performance of Ted
Evaluator: Center Director

During Ted's work experiences within the Kittredge School: Donner Project, he has proven himself to be dependable and efficient. Reluctantly we see this relationship ending with Ted, for he is quite a versatile young man. Not only does he work well with children, but he is very handy with tools and doing repair work around the building.

When Ted began working with young children, he was aloof and somewhat scared. After two years of experience he interacts well with them and ably assumes the responsibility of the entire group when a teacher is out.

Ted can be rated "good" on attendance, cooperation, and initiative.

Subject: Work Performance of Bill
Evaluator: Lead Teacher

Bill does an excellent job of planning activities for the toddlers that are sensitive to the developmental needs of the children. His choice usually shows resourcefulness. His planning suggests structure and clear limits, but is flexible to allow for incidental learning.

Bill effectively follows through plans with smooth transitions. Pacing in keeping with individual abilities and situational demands is a technique he has mastered to perfection. He provides a strong role and speech model for children.

He teaches and encourages toddlers in self-help skills and consistently strives to keep children clean, neat and comfortable.

Another one of Bill's stronger areas is using behavior modification techniques effectively in shaping behavior. He sets clear limits and standards for children, and maintains a positive classroom atmosphere.

Sometimes along with his studies he reads child development books. He enrolled in a class in child development which provided input for his professional growth.

In the toddler room, Bill assumes a role of leadership when the situation calls for it. He contributes his own ideas and materials to help support the activities of others.

Bill uses facial expression and voice adeptly with children. His enthusiasm exudes from him as he interacts with all children. Bill generally approaches problems with confidence.

He responds and adjusts to new situations with a reasonable ease. He handles most problems independently but sometimes asks for help when needed, and is able to use this help effectively. He takes the idea and develops it into something that is his.

Bill has the vitality to do his job, but moves slowly. He has a "classic nursery school voice" and uses correct enunciation. Bill is considered an excellent worker in all aspects of job performance that relate to all ages of children.

Subject: Work Performance of Bill
Evaluator: Center Director

Bill has been working with the Donner Project for two years and has proven himself to be an asset in his dealings with children. His attendance and punctuality are good, although he has had problems with transportation but has taken the initiative to solve them so he can get to work on time.

I believe the greatest compliment that can be paid Bill is his being asked to continue with the Center after the Male Research aspect has ended. He is hired as a teacher in the Toddler Area on the condition of attending child development courses.

Subject: Work Performance of John
Evaluator: Center Director

Generally speaking, John's attendance during his employment with the Project has been good but he has had some difficulty in getting to work on time. His quantity and quality of work can be rated fair because it seems difficult for him to take the initiative in approaching a task. But when I've asked him directly to do something, he is quite cooperative and willingly goes to it.

When John first came to the Center a year ago, he was uncooperative with his cooperating teacher, but as he was more exposed to the other male teachers, he improved in his efforts with both children and staff.

Subject: Work Performance of Dan
Evaluator: Center Director

Dan possesses definite characteristics of leadership.

During his year with the Project his attendance and punctuality were generally good, but at times he neglected to notify the Director that he would be late coming in. He rates high on initiative and enthusiasm in his relationship with his group of children and cooperating teacher. He was very much aware of his ability to work with the whole group.

Overall, Dan was good at his work and dependable.

APPENDIX I

"Male Caregivers in Day Care" Questionnaire

Please think about the following questions very carefully and answer in depth. Give as many examples as you can.

(1) Do you think having a male teacher in the preschool is important? Why? Do you feel that you can provide some experiences for the children which they otherwise would miss?

(2) How do you feel you relate to other staff members (e.g., co-teachers, lead teachers, directors in the centers where you work)? What do you think their attitude is toward your role as a male teacher?

(3) How do the children react to you? Can you observe any major changes in their attitude toward you since the beginning of the project?

(4) How do you think the parents of the children relate to you? What is their attitude toward your role as a male teacher?

(5) How do your friends react to your job?

(6) How does your family react to your job?

(7) How do your girl friends react to your job?

(8) In your opinion, do boys and girls respond differently to male and female teachers?

(9) Do you feel that you interact differently with male and female children?

(10) Do you see any major behavioral differences between male and female children?

(11) Do you think male and female teachers are very different in terms of what behaviors they reinforce and punish in boys and girls?

(12) How has this teaching experience affected you?

(13) What are some of the things you would put more (or less) emphasis on at school if you were not working in a female world under the supervision of females?

(14) How do you feel about working in a world which has been and presently is dominated by females?

APPENDIX J

References for the Tests Administered to the Male Caregivers

Peabody Picture Vocabulary Test (Forms A and B)

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APPENDIX K

Demographic Information About the Four Samples

The following summarizations were made on the subjects at Kittredge, Harobi, Donner, and Trinity centers:

(1) Parents' age, by sex of parent

(2) Marital status of parents

(3) Parents' education, by sex of parent

(4) Parents' occupations, by sex of parent

(5) Sibling data

(6) Ordinal position

The occupational categories were taken from the 1970 Census of Population issued by the United States Department of Commerce. However, the following occupational categories were created by the authors for tabulation purposes and are not included in the United States Census occupation classification:

(1) Students

(2) Housewives

(3) Military

(4) Unemployed

Kittredge

1. Age of parents

Mothers' ages (N = 47)
Mean = 30.36

Fathers' ages (N = 46)
Mean = 34.19

2. Marital status of parents (N = 48)

Parents are married and living together	79.17%
Parents are separated	6.25%
Parents are divorced	12.50%
One parent deceased	2.08%

3. Parents' education

Mother's education (N = 46)

Doctoral degree earned	6.52%
Presently working toward doctorate	4.35%
Master's degree earned	10.87%
Presently working on master's degree	8.70%
College graduate	34.78%
Presently a college student	2.17%
Some college education	26.09%
High school graduate	6.52%

Father's education (N = 46)

Doctoral degree earned	17.39%
Presently working toward doctorate	8.70%
Master's degree earned	8.70%
Presently working on master's degree	2.17%
College graduate	34.78%
Presently a college student	2.17%
Some college education	19.57%
High school graduate	6.52%

4. Parents' occupations

Mothers' occupations (N = 48)

Professional, technical and kindred workers	43.75%
Managers and administrators, except farm	4.17%
Sales workers	10.42%
Clerical and kindred workers	29.17%
Craftsmen and kindred workers	0.00%
Operatives, except transport	0.00%
Laborers, except farm	0.00%
Service workers, except private household	2.08%
Private household workers	0.00%
Students	8.33%
Housewives	2.08%
Unemployed	0.00%

Fathers' occupations (N = 45)

Professional, technical and kindred workers	42.22%
Managers and administrators, except farm	24.44%
Sales workers	17.78%
Clerical and kindred workers	4.44%
Craftsmen and kindred workers	2.22%
Operatives, except transport	0.00%
Transport equipment operatives	0.00%
Laborers, except farm	0.00%
Service workers, except private household	0.00%
Students	6.67%
Military	2.22%
Unemployed	0.00%

5. Sibling data (N = 45)

Mean number of siblings for all subjects = 0.42

6. Ordinal position (N = 48)

First-borns	72.91%
Later-borns	27.07%

Harobi

1. Age of parents

Mothers' ages (N = 48)
Mean = 30.45

Fathers' ages (N = 43)
Mean = 33.00

2. Marital status of parents (N = 47)

Parents are married and living together	82.98%
Parents are separated	0.00%
Parents are divorced	17.02%

3. Parent's education

Mother's education (N = 49)

Doctoral degree earned	2.04%
Presently working toward doctorate	0.00%
Master's degree earned	10.20%
Presently working on master's degree	2.04%
College graduate	55.10%
Presently a college student	0.00%
Some college education	20.41%
High school graduate	10.20%

Father's education (N = 48)

Doctoral degree earned	18.75%
Presently working toward doctorate	4.17%
Master's degree earned	12.50%
Presently working on master's degree	0.00%
College graduate	45.83%
Some college education	8.33%
High school graduate	10.42%

4. Parents' occupations

Mothers' occupations (N = 48)

Professional, technical and kindred workers	50.00%
Managers and administrators, except farm	2.08%
Sales workers	0.00%
Clerical and kindred workers	18.75%
Craftsmen and kindred workers	0.00%
Operatives, except transport	0.00%
Laborers, except farm	0.00%
Service workers, except private household	0.00%
Private household workers	0.00%
Students	2.08%
Housewives	27.08%
Unemployed	0.00%

Fathers' occupations (N = 44)

Professional, technical and kindred workers	52.27%
Managers and administrators, except farm	20.45%
Sales workers	15.91%
Clerical and kindred workers	2.27%
Craftsmen and kindred workers	0.00%
Operatives, except transport	0.00%
Transport equipment operatives	0.00%
Laborers, except farm	0.00%
Service workers, except private household	0.00%
Students	6.82%
Military	2.27%
Unemployed	0.00%

5. Sibling data (N = 49)

Mean number of siblings for all subjects = 0.85

6. Ordinal position (N = 49)

First-borns	55.10%
Later-borns	44.89%

Donner

1. Age of parents

Mothers' ages (N = 32)
Mean = 26.68

Fathers' ages (N = 27)
Mean = 27.51

2. Marital status of parents (N = 32)

Parents are married and living together --------- 40.63%
Parents are separated --------------------------- 56.25%
Parents are divorced ---------------------------- 3.13%

3. Parents' education

Mother's education (N = 32)
Some college education ------------------------ 9.38%
High school graduate -------------------------- 46.88%
Attended but did not complete high school ----- 31.25%
Completed elementary school ------------------- 3.13%
Attended but did not complete elementary school ---------------------------------- 9.38%

Father's education (N = 23)
Some college education ------------------------ 13.04%
High school graduate -------------------------- 34.78%
Attended but did not complete high school ----- 43.48%
Completed elementary school ------------------- 0.00%
Attended but did not complete elementary school ---------------------------------- 8.70%

4. Parents' occupations

Mothers' occupations (N = 31)

Professional, technical and kindred workers --- 0.00%
Managers and administrators, except farm ------ 0.00%
Sales workers ------------------------------ 0.00%
Clerical and kindred workers ---------------- 9.68%
Craftsmen and kindred workers --------------- 3.23%
Operatives, except transport ---------------- 16.13%
Laborers, except farm ----------------------- 3.23%
Service workers, except private household ----- 22.58%
Private household workers ------------------- 12.90%
Students ----------------------------------- 6.45%
Housewives --------------------------------- 12.90%
Unemployed --------------------------------- 12.90%

Fathers' occupations (N = 28)

Professional, technical and kindred workers --- 0.00%
Managers and administrators, except farm ------ 3.57%
Sales workers ------------------------------ 3.57%
Clerical and kindred workers ---------------- 0.00%
Craftsmen and kindred workers --------------- 28.57%
Operatives, except transport ---------------- 21.43%
Transport equipment operatives -------------- 10.71%
Laborers, except farm ----------------------- 14.29%
Service workers, except private household ----- 10.71%
Students ----------------------------------- 0.00%
Military ----------------------------------- 0.00%
Unemployed --------------------------------- 7.14%

5. Sibling data (N = 32)

Mean number of siblings for all subjects = 1.25

6. Ordinal position (N = 41)

First-borns -------------------------------- 36.58%
Later-borns -------------------------------- 63.38%

Trinity

1. Age of parents

Mothers' ages (N = 11)
Mean = 27.27

Fathers' ages (N = 5)
Mean = 29.20

2. Marital status of parents (N = 21)

Parents are married and living together --------- 23.81%
Parents are married, but father in prison ------- 4.76%
Parents are separated --------------------------- 66.67%
Parents are divorced ---------------------------- 4.76%

3. Parents' education

Mother's education (N = 13)
High school graduate -------------------------- 30.77%
Attended but did not complete high school ----- 53.85%
Completed elementary school ------------------- 7.69%
Attended but did not complete elementary school ------------------------------------ 7.69%

Father's education (N = 8)
High school graduate -------------------------- 12.50%
Attended but did not complete high school ----- 75.00%
Completed elementary school ------------------- 12.50%

4. Parents' occupations

Mothers' occupations (N = 18)

Professional, technical and kindred workers	5.56%
Managers and administrators, except farm	0.00%
Sales workers	0.00%
Clerical and kindred workers	0.00%
Craftsmen and kindred workers	0.00%
Operatives, except transport	0.00%
Laborers, except farm	0.00%
Service workers, except private household	22.22%
Private household workers	38.89%
Students	0.00%
Housewives	16.67%
Unemployed	16.67%

Fathers' occupations (N = 7)

Professional, technical and kindred workers	0.00%
Managers and administrators, except farm	0.00%
Sales workers	0.00%
Clerical and kindred workers	0.00%
Craftsmen and kindred workers	28.57%
Operatives, except transport	14.29%
Transport equipment operatives	28.57%
Laborers, except farm	0.00%
Service workers, except private household	28.57%
Students	0.00%
Military	0.00%
Unemployed	0.00%

5. Sibling data (N = 22)

Mean number of siblings for all subjects = 3.40

6. Ordinal position (N = 27)

First-borns	18.51%
Later-borns	81.46%

APPENDIX L

References for the Tests Administered to the Children

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The Children's Picture Test of Internal External Control

Battle, E., & Rotter, J. B. Children's feelings of personal control as related to social class and ethnic group. *Journal of Personality*, 1963, *31*, 482-490.

Peabody Picture Vocabulary Test

Dunn, L. M. *Peabody Picture Vocabulary Test*. Circle Pines, Minnesota: American Guidance Service, Inc., 1959.

APPENDIX M

First Year Results

Only the two experimental centers (Kittredge and Donner) were involved during the first year of the project. The age division for the first year of the project was 48 months and below for younger children and above 48 months for the older children. The variables, therefore, for the first year were the following: (1) sex of subject (male, female); (2) age of subject (three-year-olds: 48 months and below; five-year-olds: above 48 months); (3) center (Kittredge, Donner); (4) father status (absent, present); and (5) experimenter sex (male, female).

ITSC

(For a description of the test, see page 80; for references, see Appendix L.) The results presented here are based on a four-way analysis of variance with the variables of interest being center, age, sex of subject, and tester sex. The father status variable was dropped from the analysis of these results because of the very small number of subjects in each condition.

Initial test results. On the initial testing, sex and age were found to be significant variables. Significant interactions were found in the following: center by age, sex of the child by sex of the tester, and age of the child by sex of the tester. Boys (M = 54.52, SD = 14.35) scored higher than girls (M = 40.58, SD = 14.55) ($F = 18.69$, $df = 1,42$, $p < .01$). Five-year-olds (M = 49.21, SD = 16.90) scored higher than three-year-olds (M = 44.04, SD = 14.31) ($F = 4.90$, $df = 1,42$, $p < .05$).

At Kittredge the five-year-olds (M = 52.82, SD = 20.93) scored higher than the three-year-olds (M = 42.46, SD = 17.15). There was, however, no difference between the five-year-olds and the three-year-olds at Donner. This center by age interaction was significant ($F = 6.00$, $df = 1,42$, $p < .05$).

Another significant interaction was that of sex of the child by sex of the tester ($F = 4.29$, $df = 1,42$, $p < .05$) (see Figure 9 .) When tested by a female, male children (M = 57.92, SD = 9.86) scored significantly higher than female children (M = 35.73, SD = 14.55) ($t = 4.61$, $df = 26$, $p < .001$), but when they were tested by a male there was no difference between the scores of male and female children. There was also a difference between female children depending upon whether they were tested by a female (M = 35.73, SD = 14.55) or a male (M = 45.13, SD = 13.43) ($t = 1.80$, $df = 29$, $p < .09$). Looking at the child's sex by the tester's sex according to centers (see Figure 10), boys at Kittredge (M = 63.00, SD = 9.68) scored higher than the girls at Kittredge (M = 33.63, SD = 15.74) ($t = 4.27$, $df = 13$, $p < .01$) when tested by a female tester.

Figure 9

Mean Initial Scores on the ITSC as a Function of Sex of Tester

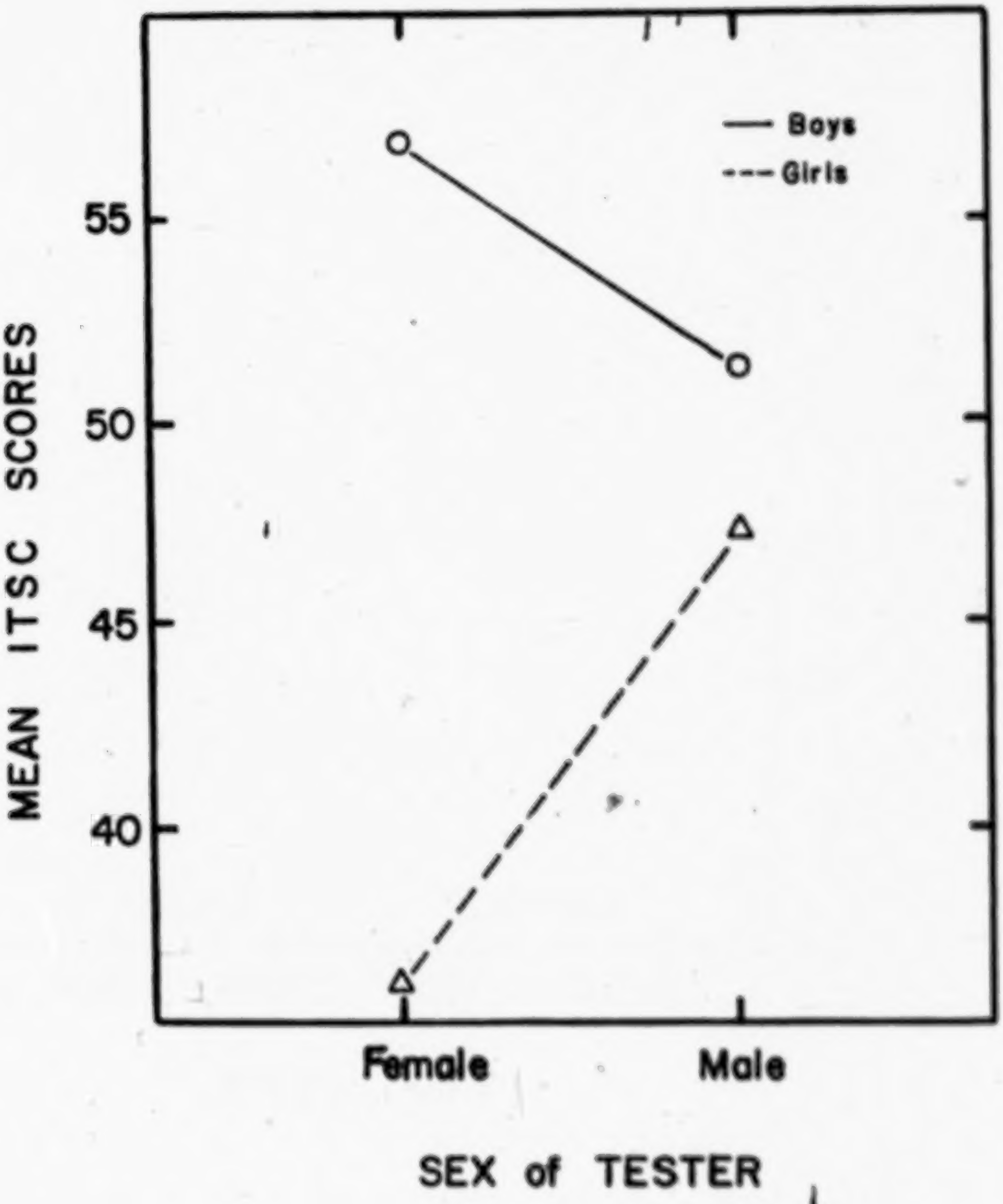
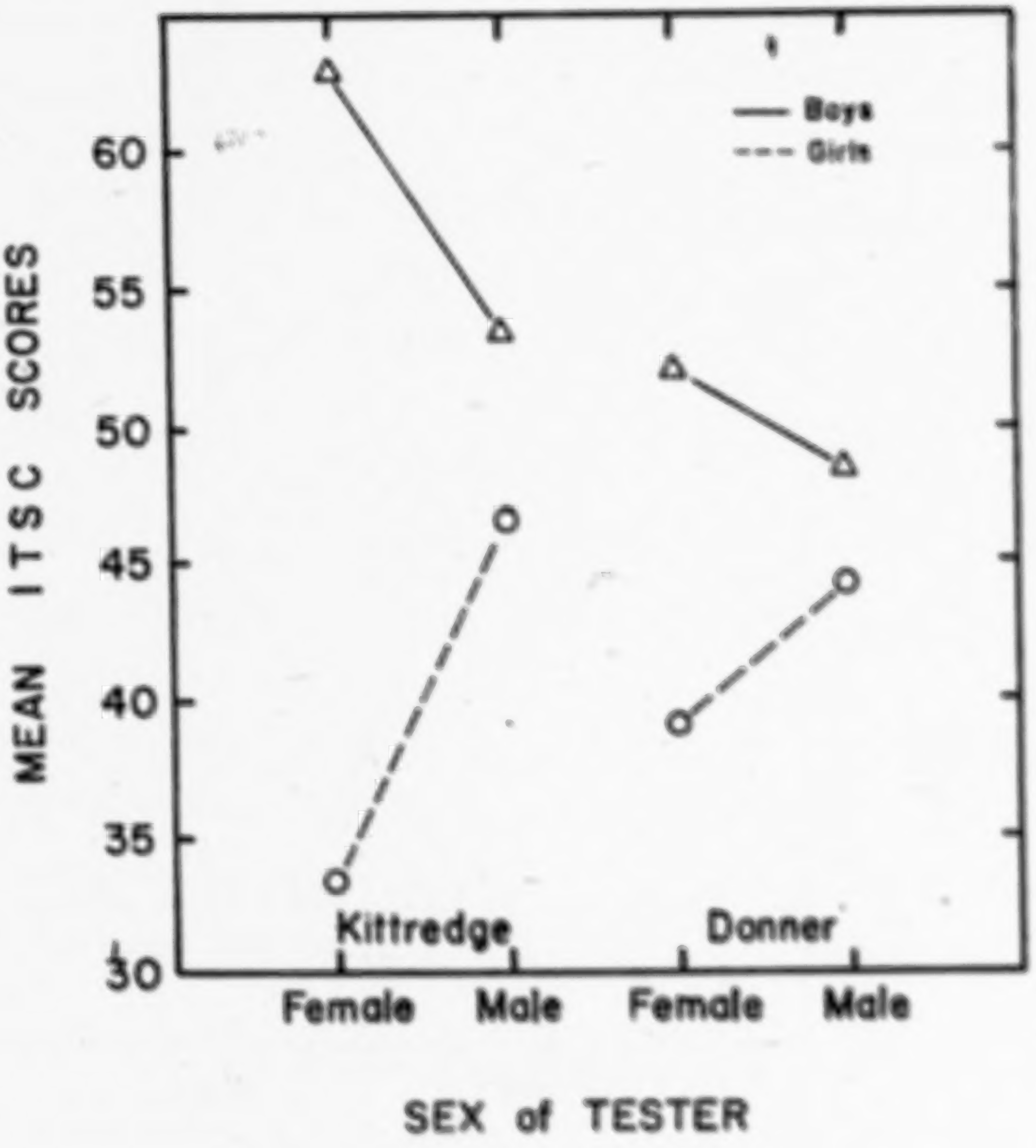


Figure 10

Mean Initial ITSC Scores:
Sex of Tester by Center



The interaction of sex of tester by age of the child was significant (F = 8.37, df = 1,42, $p < .01$). The five-year-olds gave more masculine responses when tested by male testers (M = 53.78, SD = 14.72) than did the three-year-olds when tested by male testers (M = 39.42, SD = 12.52). Five-year-olds and three-year-olds scored about the same when tested by a female tester. Three-year-olds scored more masculine when tested by a female tester (M = 48.67, SD = 14.99) than when tested by a male tester (M = 39.42, SD = 12.52). Five-year-olds, on the contrary, scored more masculine when tested by a male tester (M = 53.78, SD = 14.72) than when tested by a female tester (M = 44.06, SD = 18.15).

Change scores. Comparing initial scores with final scores obtained the first year, an Honor's Thesis (Brod, 1972) reported that the percentage of children who shifted in the direction of their gender, without regard to the appropriateness of their initial scores, was significant ($p < .05$). At Donner, the change (M = -8.74, SD = 16.41) was significant for the entire subject pool (t = -2.50, df = 22, $p < .02$). The females especially became more feminine (M = -12.23, SD = 14.34) (t = 2.96, df = 12, $p < .02$).

Summary. On the ITSC initially, boys were more masculine than girls, and at Kittredge five-year-olds were more masculine than three-year-olds. Male children scored significantly higher than female children when tested by a female tester but not when tested by a male tester; this was especially true at Kittredge. Girls scored higher when tested by a female than they scored when tested by a male. When tested by a male tester, five-year-old children were more masculine than three-year-old children; interestingly, there was no difference between five-year-olds and three-year-olds when they were tested by a female. Three-year-olds scored higher for a female tester while the five-year-olds scored higher for a male tester. A significant percentage of all of the children changed their scores in the appropriate direction, and the Donner girls especially became more feminine.

DAP

(For a description of this test, see page 83; for references, see Appendix L.) A two-by-two chi-square analysis was done on the DAP data. The sex of the child (male or female) was considered according to the sex of the first figure (male or female) he drew. Initially at Kittredge, 10 of 16 boys drew a male figure first, and 11 of 15 girls drew a female figure first. This was a significantly appropriate choice ($\chi^2 = 4.00$, df = 1, $p < .05$). On the final test, however, the choices were even more significant: 11 of 16 boys drew male figures first and 10 of 12 girls drew female figures first ($\chi^2 = 7.47$, df = 1, $p < .01$). The choice of sex of figure drawn first was not significant at Donner either initially or on the final test. In terms of change of choice, at Kittredge four children of 26 changed from an inappropriate figure to an appropriate one, while another four changed from an appropriate figure to an inappropriate one. At Donner, two boys of 10 changed appropriately, but three changed inappropriately. Of the 12 girls at Donner, four changed appropriately, and only three changed inappropriately.

RABBAN

(For a description of the test, see page 85; for references, see Appendix L.) A four-way analysis of variance (father status was excluded because of small numbers) was performed on the RABBAN data; the variables considered, therefore, were center, age, sex of subject, and sex of tester. Initially, there was a main effect of sex and a three-way interaction of center by sex by age. Males (M = 5.64, SD = 1.44) made more masculine choices than the females made (M = 2.50, SD = 1.67) ($F = 55.58$, $df = 1,52$, $p < .01$). Considering the center by sex by age interaction ($F = 5.35$, $df = 1,52$, $p < .05$), the males at both centers (Kittredge males: M = 5.94, SD = 1.43; Donner males: M = 5.33, SD = 1.41) scored higher than the females (Kittredge females: M = 2.27, SD = 1.71; Donner females: M = 2.71, SD = 1.65) (Kittredge: $t = 6.40$, $df = 31$, $p < .001$); Donner: $t = 4.90$, $df = 33$, $p < .001$). At Kittredge the five-year-old males (M = 7.33, SD = 0.82) scored higher than the three-year-old males (M = 5.25, SD = 1.14) (_t_ = 4.16, _df_ = 16, $p < .001$). There were no differences along the age variable for the males at Donner or for the females at either school. No changes were found when the initial first year scores were compared with the final first year scores.

BILLER

(For a description of the rating scale, see page 89; for references, see Appendix L.) A three-way analysis of variance was performed on the data from this rating scale. The variables considered were center, age, and sex of the subject. Initially, there was a tendency for the males (M = 42.24, SD = 8.66) to be rated more masculine than the females (M = 38.33, SD = 8.11) (_F_ = 3.84, _df_ = 1,69, $p < .10$). At Donner, the children whose fathers were absent (M = 43.92, SD = 6.23) were rated more masculine than the children whose fathers were present (M = 39.46, SD = 6.38) (_F_ = 5.39, _df_ = 1,22, $p < .05$). There were no overall changes from the initial to the final ratings.

CID

(For a description of this scale, see page 93; for references, see Appendix L.) The analysis of the CID data was done by the use of the Student's _t_. The greatest change on the CID was for the boys at Kittredge who decreased significantly their distancing of figures of black boys their own age from the initial test (M = 7.63, SD = 4.97) to the final test (M = 3.33, SD = 3.24) ($t = 3.27$, $df = 11$, $p < .01$). Another significant change was for the Donner girls who decreased their distancing of figures of their sisters from the time of the first test (M = 5.38, SD = 4.25) to the time of the last test (M = 1.73, SD = 3.64) ($t = 2.61$, $df = 12$, $p < .05$).

The boys at Kittredge decreased their distancing of females of their same race from the initial (M = 6.18, SD = 2.15) to the final administration of the scale (M = 3.45, SD = 1.50) ($t = 3.589$, $df = 11$, $p < .01$). There was also a significant change for the boys at Donner, who distanced females of their same race less at the end of the year (M = 3.28, SD = 2.18) than at the beginning (M = 5.01, SD = 1.75) ($t = 2.777$, $df = 9$, $p < .05$). The Donner girls allowed females of their same race to approach closer on the final test (M = 2.11, SD = 1.42) than they had initially (M = 3.92, SD = 1.83) ($t = 2.73$, $df = 12$, $p < .02$). There was no change for Kittredge girls on their distancing of males or females. However, the Kittredge boys allowed like-race males to approach considerably closer by the end of the year (M = 2.83, SD = 1.64) than they had initially (M = 5.55, SD = 1.55) ($t = 5.06$, $df = 11$, $p < .001$). The Donner boys also decreased their distancing of like-race males from the beginning of the year (M = 4.63, SD = 1.64) to the end of the first year (M = 2.87, SD = 1.67) ($t = 4.07$, $df = 9$, $p < .01$). There was also a change for Donner girls to distance like-race males less (M = 3.67, SD = 1.44) by the end of the first year than at the beginning (M = 5.14, SD = 1.72) ($\underline{t}$ = 2.53, $\underline{df}$ = 12, $\underline{p} < .05$).

For the Kittredge boys, distancing of fathers (M = 4.42, SD = 4.63) initially correlated significantly with the distancing of the male teachers (M = 5.58, SD = 4.36) ($\underline{r}$ = .67, $\underline{p} < .05$), but on the final test this correlation was not significant. However, the distancing of mothers initially (M = 5.83, SD = 5.62) correlated significantly with the distancing of female teachers (M = 4.75, SD = 3.99) ($\underline{r}$ = .71, $\underline{p} < .05$) for the Kittredge boys, and the correlation remained significant at the conclusion of the first year (mothers: M = 2.17, SD = 2.92; teachers: M = 3.67, SD = 3.50) ($\underline{r}$ = .64, $\underline{p} < .05$). The only significant correlation for the Kittredge girls was on the final test where there was a significant correlation ($\underline{r}$ = .86, $\underline{p} < .01$) of the distancing of mothers (M = 1.50, SD = 3.23) and female teachers (M = 1.54, SD = 3.45).

At Donner, the boys initially did not correlate their distancing of their fathers with their distancing of their male teachers, but at the end of the year, the distance of fathers (M = 1.65, SD = 1.99) did correlated with the distance of male teachers (M = 2.45, SD = 3.17) ($\underline{r}$ = .80, $\underline{p} < .01$). On the other hand, the distance of mothers (M = 4.25, SD = 4.35) initially correlated with the distance of the female teachers for the boys

(M = 5.25, SD = 3.39) (r = .70, $p < .05$), but at the end of the year, mothers' distance did not correlate with teachers' distance. For the correlation of male teachers and fathers, the Donner girls changed in the reverse direction of the Donner boys. The Donner girls initially correlated very highly on the distance at which they placed their fathers (M = 4.73, SD = 3.89) as compared with their male teachers (M = 4.73, SD = 3.85), but by the end of the year the correlation was not significant. Mothers' distance (M = 3.23, SD = 3.94) for Donner girls initially correlated significantly with teachers' distance (M = 3.73, SD = 4.43) (r = .86, $p < .01$), and at the end of the year there was still a significant correlation for the distancing of mothers (M = 1.27, SD = 3.18) and teachers (M = 1.88, SD = 3.97) (r = .86, $p < .01$).

Summary. Except for Kittredge girls who did not change, there was a significant change for each group of subjects; they distanced males and females of the same race less at the end of the year than they had initially. Kittredge boys also decreased their distancing of figures of black boys their own age. There was a correlation of mothers' and female teachers' distance for Kittredge boys and on the final test for Kittredge girls. On the final testing, the Donner boys correlated their distancing of fathers and male teachers, but Donner girls did not. On the contrary, the final distancing of mothers and female teachers correlated for the Donner girls but not for the Donner boys.

CEFT

(For references, see Appendix L.) A three-way analysis of variance was performed on the CEFT data. The variables considered were center, age, and sex of the subject. On initial testing the only significant main effect was that of age ($\underline{F}$ = 7.96, $\underline{df}$ = 1,30, $\underline{p} < .01$). Five-year-old children (M = 8.55, SD = 5.51) scored higher than three-year-old children (M = 4.38, SD = 2.88). The five-year-olds, therefore, had scores which were in the direction of greater field-independence. The mean change for all of the children was significant ($\underline{F}$ = 5.28, $\underline{df}$ = 1, 23, $\underline{p} < .05$); the entire population became more field-independent (M = 2.07, SD = 3.00). At Donner, there was a significant main effect of father status ($\underline{F}$ = 23.69, $\underline{df}$ = 1,7, $\underline{p} < .01$). Father-absent children (M = 4.25, SD = 2.12) changed more in the direction of field-independence than father-present children (M = 0.43, SD = 2.23).

IPT

(For a description of this test, see page 110; for references, see Appendix L.) The data for this test were analyzed using Student's $\underline{t}$ to evaluate the differences between the groups. Initially, the children at Kittredge (M = 9.50, SD = 3.52) made a significantly greater number of appropriate choices than the children at Donner did (M = 5.70, SD = 3.20) ($\underline{t}$ = 4.11, $\underline{df}$ = 51,

$p < .001$). The only significant change on this test was for the Kittredge males who initially made fewer appropriate responses (M = 8.80, SD = 3.55) than they did on the final test (M = 11.60, SD = 3.20) ($t = -3.70$, $df = 9$, $p < .01$).

PPVT

(For a description of the test, see page 116; for references, see Appendix L.) A three-way analysis of variance was performed on the data from the PPVT. The variables considered were center, age, and sex of the subject. Initially, the children at Kittredge (M = 112.88, SD = 14.46) scored higher on the PPVT than the children at Donner (M = 69.93, SD = 12.86) ($F = 130.09$, $df = 1,53$, $p < .001$). There was a suggestion of a center by sex interaction with the males at Kittredge (M = 117.41, SD = 14.46) scoring higher than the females at Kittredge (M = 107.73, SD = 13.06) ($t = 1.98$, $df = 59$, $p < .10$). There were no changes from the fall to the spring scores.

APPENDIX N

Test Results for the Two-Year Subjects

ITSC

The only significant change that was observed to occur in the ITSC scores was at Kittredge. The final scores of males at this center were significantly more masculine (M = 68.80, SD = 11.81) than those that were recorded at the initial test (M = 56.20, SD = 13.67) (t = 5.23, df = 9, $p < .001$). No other differences were significant.

DAP

At the first test time, 69.2 percent of the Donner children (N = 13) made appropriate choices with respect to the sex of the first figure drawn. At the time of the final testing, this percentage had increased to 84.2 percent (N = 19). On the other hand, for the Kittredge center, there was a drop in the percentage of children making an appropriate choice with respect to the sex of the first figure drawn: The percentages were 62.5 and 55.6 at the first and final test times, respectively.

RABBAN

At Kittredge, boys were observed to select significantly more masculine toys at the final test (M = 6.42, SD = 1.00) than they selected initially (M = 5.58, SD = 1.44) (t = 2.42, df = 11, $p < .05$).

At Donner, when scores were collapsed across sex, a generalized increase in masculinity was observed between the initial (M = 3.71, SD = 2.02) and final scores (M = 4.53, SD = 1.50) ($\underline{t}$ = 2.19, $\underline{df}$ = 16, $\underline{p} < .05$). The scores of girls, in particular, were more masculine at the final test (M = 3.78, SD = 1.30) than they were initially (M = 2.56, SD = 1.67) ($\underline{t}$ = 2.05, $\underline{df}$ = 8, $\underline{p} < .01$).

CID

For Kittredge boys and girls combined, there was a tendency for the CID scores for the white, female figure to be smaller at the final test (M = 1.88, SD = 3.12) than they were at the initial test (M = 4.69, SD = 5.21) ($\underline{t}$ = -1.87, $\underline{df}$ = 12, $\underline{p} < .10$). A different trend was observed among the Kittredge females for both of the two black figures. Scores for the black female figures increased from an average 0.0 cm (SD = 0.0) to 7.88 cm (SD = 5.44) ($\underline{t}$ = 2.90, $\underline{df}$ = 3, $\underline{p} < .10$). The scores for the black male figure rose from an initial 0.0 cm (SD = 0.0) to 8.0 cm (SD = 5.34) ($\underline{t}$ = 3.00, $\underline{df}$ = 3, $\underline{p} < .10$).

At Donner, changes occurred only for concrete figures. Females were observed to have smaller CID scores for the mother figure at the final test (M = 1.00, SD = 1.41) than they had initially (M = 4.56, SD = 4.52) ($\underline{t}$ = -2.05, $\underline{df}$ = 7, $\underline{p} < .10$). Their scores for the brother and female teacher figures also became smaller. Scores for the brother figure declined from an average 4.81 cm (SD = 5.04) to 0.81 cm (SD = 0.92) ($t = -2.29$, $df = 7$, $p < .10$); for the female teacher figure they declined from 5.62 cm (SD = 4.74) to 0.88 cm (SD = 1.13) ($t = -2.65$, $df = 7$, $p < .05$). Obviously, many of these effects were not particularly strong; therefore, care should be exercised in their interpretation.

BORKE

At Kittredge, recognition by all subjects of the four sad faces improved from an initial level of 1.91 items (SD = 1.14) to a final score of 3.36 items (SD = 1.03) ($t = 4.66$, $df = 10$, $p < .001$). Combined recognition of the afraid items increased from 1.45 (SD = 1.57) to 3.64 (SD = 0.67) ($t = 4.35$, $df = 10$, $p < .01$). Although there was significant overall improvement in recognition of the mad items, this effect was located primarily in performance of the male subjects where an average of only 0.71 mad items (SD = 0.76) were originally recognized, but 2.43 of the items (SD = 0.79) were recognized at the final test. With the four types of item combined together in a total score, performance at Kittredge improved from an initial level of 7.45 items (SD = 3.24) to 13.00 items (SD = 1.84) at the final test ($t = 6.47$, $df = 10$, $p < .001$).

At Donner, only females showed improved recognition of the happy items. Initially they recognized an average 2.25

happy items (SD = 1.39) while 3.25 items (SD = 0.89) were recognized at the final test (*t* = 3.74, *df* = 7, $p < .01$). There was a significant improvement for the recognition of sad items when male and female children were combined together. At the time of the initial test, only an average 0.57 sad items were recognized (SD = 0.94), while an average 2.07 such items (SD = 1.14) were recognized at the final test (*t* = 3.86, *df* = 13, $p < .01$). Significant improvement in the recognition of afraid items occurred primarily with female children. Females recognized an average 1.62 afraid items at the final test (SD = 1.30), while initially they had recognized only 0.38 such items (SD = 0.52) (*t* = 3.03, *df* = 7, $p < .02$). Males at Donner were largely responsible for the improvement in recognition of mad items. Males initially recognized 0.38 mad items (SD = 0.52), but increased to 1.38 items (SD = 0.92) at the final test (*t* = 2.65, *df* = 7, $p < .05$). Analysis of the total score for each child collapsed across the four types of item, indicated significant improvement in the scores of females. At the initial test, girls correctly responded to an average 3.88 of the 16 items (SD = 1.64). However, by the time of the final test, 8.38 of the items were recognized (SD = 2.88) (*t* = 5.61, *df* = 7, $p < .001$).

PPVT

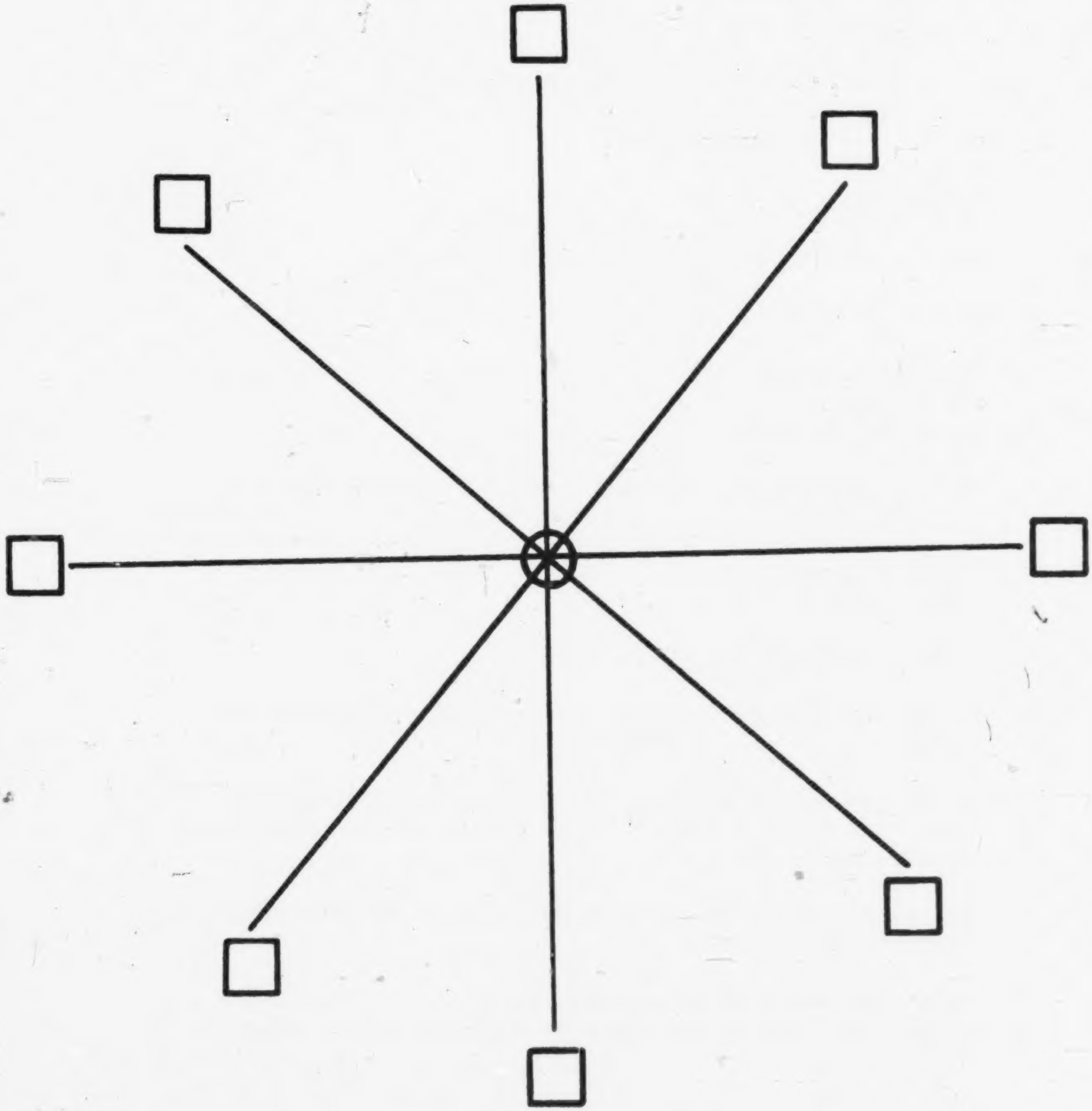
Analysis of the first year PPVT results indicated significant gains for both sexes between the initial and final tests. With boys and girls combined, the children at Donner gained an average 19.31 points between the initial test (M = 68.31, SD = 8.99) and the final test (M = 87.62, SD = 15.79) ($t = 5.51$, $df = 12$, $p < .001$). Final scores of boys and girls (M = 84.33, SD = 15.72, and M = 90.43, SD = 16.51, respectively) were each significantly higher than their initial, first-year scores (M = 65.17, SD = 4.54, and M = 71.00, SD = 11.22) ($t = 3.07$, $df = 5$, $p < .05$, and $t = 4.62$, $df = 6$, $p < .01$). No significant differences were observed between any of the initial and final scores at Kittredge.

Note:

"Initial test," in this Appendix, refers to the very first test given to these subjects in the beginning of the first demonstration year. "Final test" refers to the last test administered to these subjects, at the end of the second demonstration year.

APPENDIX O

CID Scale



Scale: One Half

APPENDIX P

Interaction Checklist

Teacher Behaviors

A. Attempts at maintaining the ongoing behavior

1. Joins in the activity
2. Direct verbal praise
3. Public praise
4. Social reward (granting of privileges)
5. Material reward
6. Physical contact
7. Facial expression, gestures (smiles, nods, etc.)
8. Orients to better receive the child (moves nearer, turns around to face the child, looks up at the child, etc.)
9. Offers to help the child.
10. Helps the child physically by moving objects or the child
11. Helps the child verbally by pointing out something to make the child's task easier, rephrasing or repeating directions
12. Helps the child indirectly by getting another adult or child to help him
13. Asks task-related questions, gives instructions or demonstrations to initiate an instructional activity

B. Shows affection (unconditional)

    1. Physical contact

    2. Direct verbal comment -- e.g., "I like you"

    3. Facial expression

C. Responds to direct requests for permission to do something: (Indicate physical, p, or verbal, v.)

    1. Denies flatly (no reasons given)

    2. Refuses, but states reasons

    3. Consents, agrees

    4. Ignores

D. Attempts at stopping the ongoing behavior

    1. Verbal request not to do something or to do something else -- reasons are given. Indicate accompanying physical restraint when present.

    2. Verbal comment to stop doing something or to start doing something else -- no reasons are given. Indicate accompanying physical restraint when present.

    3. Indirect verbal request to stop: e.g., praise another child exhibiting the desired behavior.

    4. Presentation of alternative courses of action, distraction and initiation of new activity.

    5. Warning: indicate threat.

    6. Isolation

    7. Physical punishment: e.g., spanking or shaking the child.

    8. Rejection (physical): e.g., moving away from child, pushing the child away, etc.

    9. Rejection (psychological): e.g., "You are not a good girl."

10. Withdrawal of reinforcement: deprive of desired activity, toy, etc.; indicate social or material.

11. Ignore: no verbal or physical response observable, seeming preoccupation with something else, continuing with ongoing activity.

12. Disagrees: e.g., "No, that's wrong."

Child Behaviors

A. Instrumental attention bids

1. Requests help to achieve something physical, social, etc.

2. Requests materials to achieve goal.

3. Requests help to get out of a danger situation, physical or social: e.g., facing ridicule, in physical danger of being hurt, has property taken or damaged, his rights are being usurped, etc.

4. Attempts to be involved with an ongoing or new activity: e.g., asking permission, making a constructive suggestion, making a physical attempt to get something, etc.

5. Disrupts an activity or inconveniences the participants while attempting to be involved in the activity: e.g., pushing children to get into the reading circle.

6. Attends, cooperates - in response to direct bid from teacher.

7. Continues with an ongoing behavior - no interaction with teacher.

8. Constructive participation - verbal or physical.

B. Emotional attention bids: Positive reassurance seeking

1. Engages in repeated irrelevant activity - verbal or physical.

2. Asks unnecessary permission or help.

3. Asks teacher to intervene in conflicts (tattling component is heavy).

4. Seeks praise for job, finished or ongoing - e.g., "Look at mine."

5. Physical, non-aggressive attention bids: e.g., touching and holding, clasping onto others.

6. Orientational attention bids: following or standing near.

7. Verbal statements of liking (unconditional).

C. Emotional attention bids: Negative attention seeking

1. Aggressive activity with minimal or no provocation.

2. Tantrums.

3. Defiance or oppositional behavior: ignoring, refusing, or doing opposite.

4. Disrupting group or individual activity in progress by inappropriate behavior(s).

APPENDIX Q

Checklist
(Fagot-Patterson)

Behaviors

1. Painting at tables.

2. Cutting, pasting, drawing with crayons or chalk.

3. Playing with clay.

4. Play in mud or sandbox outside.

5. Play with water, blowing bubbles.

6. Design board, puzzles, tinker toys, flannel boards, marble games.

7. String beads.

8. Build blocks, set up farms and villages.

9. Hammering.

10. Playing toy trucks, planes, boats, trains, tractors.

11. Play with steering wheel, dashboards.

12. Play in large playhouse or extended kitchen/household activities.

13. Play with dollhouse.

14. Play with dolls.

15. Dress in like-sex costume.

16. Dress in opposite-sex costume.

17. Use like-sex tools.

18. Use opposite-sex tools.

19. Sing, listen to records, play musical instruments.

20. Look at books or listen to story.

21. Science table, observation of science or nature.

22. Play with live animals or toy animals.

23. Sit or stand and do nothing, walking, wandering around.

24. Help teacher.

25. Climb on jungle gym or up hills and hide in pipes.

26. Ride trikes, cars, horses, skates, wagons, boats.

27. Swing, slides, teeter totter, merry-go-round or rolling with tires.

28. Throw or play with ball, rocks or objects, hit with an object, push.

29. Running, jumping.

30. Following teacher around.

Consequences

1. Teacher initiates new behavior.

2. Teacher comments favorably.

3. Teacher joins in activity.

4. Teacher criticizes.

5. Child imitates another child.

6. Child involves with another child in parallel play.

7. Child joins another child in interactive play.

8. Child stands and watches another child.

9. Child continues alone.

10. Child criticizes another child.

APPENDIX R

Walters, Pearce, and Dahms' Categories of Aggression and Affection

The definitions of the terms within the aggressive and affectional categories are as follows:

Physical Aggressive

Annoys, teases, interferes:	Disturbs, irritates, irks, bothers, pesters another; does something systematically (like withdrawing object) which irritates another (offers and withdraws toy); meddles, tampers with, intrudes upon the activities or materials of another.
Hits, strikes:	Renders a quick, spontaneous blow (kicks, pushes, pulls, punches, pinches, slaps, jumps on, bites, scratches, spits, throws object).
Competes for status:	Attempts to perform better than another person (to "show up" another).
Threatening gesture:	Makes a belittling, detracting gesture at another person; gives signs of injuring the person or materials of another (reaches for, pretends to throw object, raises arm as though to hit another child).
Pursues:	Runs after or follows with the intent of inflicting a blow.
Snatches or damages property of others:	Takes away property from another person (grabs material); disarranges or destroys the property of another.

Negativism:	Refuses to work with or conform to the directions of another (refuses to share, refuses to obey, ignores, hides, runs away).
Pushes, pulls, holds:	Moves away or ahead by steady pressure, without striking; exerts force to cause motion; maintain a grasp on.

Verbal Aggressive

Commands or demands:	Strongly directs or asks (crossly or otherwise) action or material from another. (Orders another child to hand over objects he is playing with; puts object to another's mouth and tells her to kiss it).
Cross-purposes:	Conflict over ways of using equipment.
Disparages:	Makes remark indicating dislike for another person. ("I don't like you."); finds fault with, censures or condemns another's behavior; humiliates, laughs at another's misfortune, mocks; expresses desires that another should be the victim of injurious events. ("I wish you would die."); attributes bad qualities to another (swears at, calls names).
Injury via agent:	"Eggs on" another person to injure a third person.
Refuses to comply:	Refuses the requests of another.
Rejects:	Denies activity or privilege to another. ("I have a house and you can't come in.")

Shifts blame:	Attributes own bad actions to another in report to a third person.
Tattles:	Reports the actions of another (with or without a value judgment) to a third person.
Claims possession:	States that material belongs to him. ("That's mine.")
Threatens:	Declares an intention to report the actions of another to a third person. ("I'll tell your mother that you're bothering me.")

Physical Affectional

Compliant:	Conforms to another's desire or request.
Kisses:	Touches or presses with lips.
Pats, fondles, hugs:	Close embrace, strokes, caress, soothe.
Smiles, laughs with someone:	May express amusement, pleasure or tender affection.
Helpful, shares:	Gives assistance to another; divides materials with others.
Sympathetic:	Sensitive to or affected by the emotions of others.

Verbal Affectional

Accepts:	To receive with favor; to approve.
Asks permission, request:	Requests consent or asks assistance.
Speaks in friendly manner:	Talks with another in such a manner so as to reassure, to express warm feeling for the person.

Compliments, praises:	To admire, commend. ("That's a pretty dress.")
Offers to compromise, share, cooperate:	Settles conflict by mutual agreement; to act or operate jointly with another.

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